WEST Search History

DATE: Thursday, October 31, 2002

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=OR		
L3	L1 and (angiogenesis!)	55	L3
L2	L1 and (angiogenic! or antiangiogenic!)	28	L2
L1	((514/18)!.CCLS.)	1202	L1

END OF SEARCH HISTORY

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=OR		
L25	L24 AND (SURGERY OR SURGICAL OR CHEMOTHERAP$ OR RADIATION OR "LASER THERAPY")	21	L25
L24	L23 AND (dna$ OR VECTOR$)	25	L24
L23	L22 AND (OCULAR OR CHOROIDAL OR RETINA$ OR BARTONELLOSIS OR "CHRONIC INFLAMMATION" OR OSTEOARTHRITIS OR RHEUMATOID OR PHEMPHIGOID OR TRACHOMA OR OSLER$)	25	L23
L22	L21 AND (TUMOR$ OR METASTASES OR RETINAL OR CHOROIDAL$)	35	L22
L21	L20 AND INFLAM$	38	L21
L20	L19 AND PHARMACEUTICAL	49	L20
L19	L18 AND (CARBOXY OR "CARBOXY TERMINAL")	56	L19
L18	L17 AND (CARBOXY OR "CARBOXY TERMINAL")	56	L18
L17	L15 AND (ACETYL$ OR BENZOYL$ OR ALKYLSULFONYL$ OR ARYLSULFONYL$ OR ALKYLAMINOACYL$ OR FORMYL$)	95	L17
L16	L15 AND (CAP OR CAPS OR CAPPED$)	41	L16
L15	L14 AND ANGIOGEN$	168	L15
L14	"SER ASN SER" OR "SER GLN SER"	2398	L14
L13	L10 OR L11	1	L13
L12	6027711.PN. AND (OCULAR OR CHOROIDAL OR RETINA OR BARTONELLOSIS OR "CHRONIC INFLAMMATION" OR OSTHEOARTHRITIS OR RHEUMATOID OR PHEMPHIGOID OR OSLER OR RENDU OR TRACHOMA)	0	L12
L11	6027711.PN. AND (TUMOR$ OR METASTASES OR RETINAL OR CHOROIDAL)	1	L11
L10	6027711.PN. AND INFLAM$	1	L10
L9	L8 or l6	3	L9
L8	6027711.pn. and (benzoyl$ or alkylsulfonyl$ or arylsulfonyl$ or alkylaminoacyl$ or arylaminoacyl or formyl$)	1	L8
L7	6027711.pn. and (acetyl$)	0	L7
L6	L5 and (cap or caps or capped)	3	L6
L5	l2 and tripeptide$	19	L5
L4	L2 and ("snss" or "sqss")	0	L4
L3	L2 and ("ser gln ser" or "ser asn ser")	0	L3
L2	L1 and angiogen$	48	L2
L1	((530/331)!.CCLS.)	1259	L1

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--biosynthesis--BI; RNA , Messenger--biosynthesis--BI; Recombinant Fusion
Proteins--biosynthesis--BI
  Molecular Sequence Databank No.: GENBANK/ST5825; GENBANK/ST5826
  CAS Registry No.: 0 (Cell Adhesion Molecules); 0 (DNA, Complementary
; 0 (DNA, Fungal); 0 (HbA? protein); 0 (Oligopeptides); 0 (RNA,
Fungal); 0 (RNA, Messenger); 0 (Recombinant Fusion Proteins);
[illegible] (arginyl-glycyl-aspartic acid)
  Gene Symbol: [illegible]
  Record Date Created: [illegible]
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                    UEY STEVE' OR AU='SHUEY STEVEN W'
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                    ER AHMED'
S3     5639501   1 OR S2
S4          2[illegible]   S1 OR S2
S5            0   S4 AND ANGIOGENS
S6           40   S4 AND ANGIOGEN?
S7            0   OSLER AND WEBBER AND RENDU
S8            0   "OSLER-WEBBER-RENDU"
S9          166   BARTONELLOSIS
S10           [illegible]   S9 AND ANGIOGEN?
S11       572[illegible]   OSMOTIC
S12           1   S4 AND S11
S13        24[illegible]   12 AND ANGIOGEN?
S14           [illegible]   S13 AND ANGIOGEN?
S15        51[illegible]   RGD
S16          1[illegible]   S15 AND ANGIOGEN?
S17           [illegible]   S16 AND PY>2000
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S20           [illegible]   ANGIOGEN? AND ("SER-ASN-SER" OR "SER-GLN-SER")
S21           [illegible]   ANGIOGEN? AND ("SNS" OR "SQS")
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S24         7[illegible]1   S15 AND (DNA OR RNA)
S25          [illegible]4   S23 AND S24
S26           7   S25 AND (TISSUE OR TISSUES)
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Set       Items   Description
S1           [illegible]   AU='SHUEY S' OR AU='SHUEY S A' OR AU='SHUEY S R' OR AU='SH-
                    UEY STEVE' OR AU='SHUEY STEVEN W'
S2          146   AU='MOUSA SHAKER' OR AU='MOUSA SHAKER A' OR AU='MOUSA SHAK-
                    ER AHMED'
S3     56395[illegible]   1 OR S2
S4          2[illegible]   S1 OR S2
S5            [illegible]   S4 AND ANGIOGENS
S6           4[illegible]   S4 AND ANGIOGEN?
S7            [illegible]   OSLER AND WEBBER AND RENDU
S8            [illegible]   "OSLER-WEBBER-RENDU"
S9          1[illegible]   BARTONELLOSIS
S10           [illegible]   S9 AND ANGIOGEN?
S11       572[illegible]   OSMOTIC
S12           1   S4 AND S11
S13        241[illegible]   12 AND ANGIOGEN?
S14           [illegible]   S13 AND ANGIOGEN?
S15        51[illegible]   RGD
S16          1[illegible]   S15 AND ANGIOGEN?
S17           [illegible]   S16 AND PY>2000
S18           [illegible]   S17 AND (SER OR THR OR CYS) AND (ASN OR GLN)
S19           0   ANGIOGEN? AND ("SER ASN SER" OR "SER GLN SER")
S20           0   ANGIOGEN? AND ("SER-ASN-SER" OR "SER-GLN-SER")
S21           2   ANGIOGEN? AND ("SNS" OR "SQS")
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S24        701   S15 AND (DNA OR RNA)
S25         14   S22 AND S24
S26          7   S25 AND (TISSUE OR TISSUES)
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             7   S26
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             7   S26
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      S28    0   S26 AND OSMOTIC?
?s s26 and pump?
             7   S26
        951 7   PUMP?
      S29    2   S26 AND PUMP?
?type s29/full/all

 29/9/1      (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c) 2002 BIOSIS. All rts. reserv.

13312408   BIOSIS NO.: 200100536977
Potential tumor-targeting peptide vector of histidylated oligolysine
  conjugated to a tumor-homing RGD motif.
AUTHOR: Aoki Yuji(a); Hosaka Shigetoshi; Kawa Shigeyuki; Kiyosawa Kendo
AUTHOR ADDRESS: (a)The Second Department of Internal Medicine, Shinshu
  University School of Medicine, 3-1-1 Asahi, Matsumoto, 390-8621:
  yaoki@hsp.md.shinshu-u.ac.jp**Japan
JOURNAL: Cancer Gene Therapy  8 (10):p783-787 October, 2001
MEDIUM: print
ISSN: 0929-1903
CONTENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: We have developed a potential tumor-targeting peptide vector
  (cRGD-hK) that is intended to be systemically and repeatedly administered
  to patients with advanced solid tumors. The peptide vector of 36
  L-amino acid residues, CRGDCF(K(H-)KKK)6, comprises a tumor-homing RGD
  motif, a DNA -binding oligolysine, and histidyl residues to facilitate
  the delivery into the cytosol. Using cytomegalovirus-driven luciferase
  expression plasmids as a reporter, we tested the transfection efficiency
  of cRGD-hK in hepatoma and pancreatic cancer cell lines. Transfection
  with the cRGD-hK/plasmid complexes (molar ratio 4000:1) was inhibited by
  50 nM bafilomycin A1, an inhibitor of the vacuolar ATPase endosomal
  proton pump , or 10 mM cyclo(RGDfV), an integrin alphavbeta3 antagonist,
  indicating that the three elements of cRGD-hK could function as expected,
  at least in vitro. In nude mice bearing tumors created by subcutaneous
  inoculation, luciferase activity in the tumor tissues 48 hours after
  the injection of the cRGD-hK/plasmid complexes through the tail vein (20
  mug plasmids per mouse) was significantly higher than that in the lung,
  kidney, and spleen, but only slightly higher than that in the liver.
  Although the latter difference was small, we propose a potential tumor
  gene therapy for advanced solid tumors through use of the tumor-targeting
  peptide vector .

REGISTRY NUMBERS: 88899-55-2: BAFILOMYCIN A-1; 9014-00-0Q: LUCIFERASE;
    61868-41-8Q: LUCIFERASE; 61969-99-1Q: LUCIFERASE; 61970-00-1Q:
    LUCIFERASE; 62213-54-1Q: LUCIFERASE; 76106-81-5Q: LUCIFERASE
DESCRIPTORS:
  MAJOR CONCEPTS: Methods and Techniques; Molecular Genetics (Biochemistry
    and Molecular Biophysics); Tumor Biology
  BIOSYSTEMATIC NAMES: Herpesviridae--Animal Viruses, Viruses,
    Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata,
    Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
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ORGANISMS: HepG2 cell line (Hominidae)--human hepatoma cells; [illegible] cell line (Hominidae)--human pancreatic cancer cells; MIA PaCa-2 cell line (Hominidae)--human pancreatic cancer cells; PANC-1 cell line (Hominidae)--human pancreatic cancer cells; PLC cell line (HBP cell line) (Hominidae)--human hepatoma cells; Cytomegalovirus (Herpesviridae)--expression system; mouse (Muridae)--animal model, male, nude, strain-BALB/c
ORGANISMS: PARTS ETC: cytosol
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animal Viruses; Animals; Chordates; Humans; Mammals; Microorganisms; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates; Viruses
CHEMICALS & BIOCHEMICALS: **DNA** -binding oligolysine; **RGD** motif; bafilomycin A-1--vacuolar ATPase endosomal proton **pump** inhibitor; [illegible] peptides; Luciferase--expression; luciferase expression plasmid--reporter; tumor-targeting peptide **vector**
METHODS & EQUIPMENT: nonviral gene therapy--genetic method, therapeutic method
MISCELLANEOUS TERMS: transfection efficiency
CONCEPT CODES:
[illegible] Cytology and Cytochemistry-Animal
[illegible] Cytology and Cytochemistry-Human
[illegible] Genetics and Cytogenetics-General
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[illegible] Enzymes-General and Comparative Studies; Coenzymes
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[illegible] Genetics of Bacteria and Viruses
[illegible] Virology-Animal Host Viruses
BIOSYSTEMATIC CODES:
[illegible] Herpesviridae (1993-)
[illegible] Hominidae
[illegible] Muridae

29/9/2 (Item 1 from file: 155)
DIALOG R File [illegible]:MEDLINE R

12[illegible]3 [illegible]76 PMID: 11687901

Potential tumor-targeting peptide vector **of histidylated oligolysine conjugated to a tumor-homing** RGD **motif.**

Aoki Y; Nosaka S; Kawa S; Kiyosawa K
The Second Department of Internal Medicine, Shinshu University School of Medicine, Matsumoto, Japan. yaoki55@hsp.md.shinshu-u.ac.jp
Cancer gene therapy (England) Oct 2001, 8 (10) p793-7, ISSN 0929-1903 Journal Code: 9432230
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
We have developed a potential tumor-targeting peptide **vector** (cRGD-hK) that is intended to be systemically and repeatedly administered to patients with advanced solid tumors. The peptide **vector** of 36 l-amino acid residues, (CRGDCF[illegible]H-[illegible]KKF)6, comprises a tumor-homing **RGD** motif, a **DNA** -binding oligolysine, and histidyl residues to facilitate the delivery into the cytosol. Using cytomegalovirus-driven luciferase expression plasmid as a reporter, we tested the transfection efficiency of cRGD-hK in hepatoma and pancreatic cancer cell lines. Transfection with the cRGD-hK/plasmid complexes (molar ratio 4000:1) was inhibited by 50 nM bafilomycin A1, an inhibitor of the vacuolar ATPase endosomal proton **pump** , or 10 microM cycloRGDfV, an integrin alphavbeta3 antagonist, indicating that the three elements of cRGD-hK could function as expected, at least in vitro. In nude mice bearing tumors created by subcutaneous inoculation, luciferase activity in the tumor **tissues** 48 hours after the injection of the cRGD-hK/plasmid complexes through the tail vein (20 microg plasmids per mouse) was significantly higher than that in the lung, kidney, and spleen, but only slightly higher than that in the liver. Although the latter difference was small, we propose a potential nonviral gene therapy for

advanced solid tumor [illegible] vector .
Tags: Animal; Human; Male; Support, Non-U.S. Gov't
Descriptors: *Gene Therapy--methods--MT; *Genetic Vectors; *Mice, Inbred BALB C; *Liver Neoplasms, Experimental--therapy--TH; *Oligopeptides--genetics--GE; *Pancreatic Neoplasms--therapy--TH; *Polylysine--genetics--GE; Antibiotics, Macrolide--pharmacology--PD; Enzyme Inhibitors--pharmacology--PD; Liver Neoplasms, Experimental--metabolism--ME; Liver Neoplasms, Experimental--pathology--PA; Luciferases--metabolism--ME; Mice; Mice, Inbred BALB C; Mice, Nude; Oligopeptides--pharmacokinetics--PK; Pancreatic Neoplasms--metabolism--ME; Pancreatic Neoplasms--pathology--PA; Plasmids; Polylysine--pharmacokinetics--PK; Proton-Translocating ATPases--antagonists and inhibitors--AI; **Tissue** Distribution; Tumor Cells, Cultured
CAS Registry No.: [illegible] (Antibiotics, Macrolide); 0 (Enzyme Inhibitors); 0 (Genetic Vectors); 0 (Oligopeptides); 0 (Plasmids); 25104-18-1 (Polylysine); 71-00-1 (Histidine); 88899-55-2 (bafilomycin A1); 88796-55-2 (arginyl-glycyl-aspartic acid)
Enzyme No.: EC 1.13.12.- (Luciferase); EC 3.6.3.14 (Proton-Translocating ATPases)
Record Date Created: 20011031
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S3	5633[illegible]	1 OR S2
S4	12[illegible]	S1 OR S3
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S6	4[illegible]	S4 AND ANGIOGENIN
S7	0	OSLER AND WEBBER AND RENDU
S8	0	"OSLER-WEBBER-RENDU"
S9	16[illegible]	HAEMORRHAGIC
S10	2	S9 AND ANGIOGENIN
S11	57139	OSMOTIC
S12	1	S4 AND S11
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S15	5198	BGD
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S20	[illegible]	ANGIOGENIN AND ("SER-ASN-SER" OR "SER-GLN-SER")
S21	[illegible]	ANGIOGENIN AND ("SNS" OR "SQS")
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1004640	VIRUS?
44874	ADENOVIRUS?
52319	RETROVIRUS?
1848	NUCLEIC ACID
7409	NUCLEIC ACIDS
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1326007	DNA
707277	RNA

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5334 POLYLYSINE?
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S32 S31 AND S31
?type s32/full/all

32/9/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

13324828 BIOSIS NO.: 200100536977

Potential tumor-targeting peptide vector **of histidylated oligolysine conjugated to a tumor-homing** RGD **motif.**

AUTHOR: Aoki Yuji(a); Hosaka Shigetoshi; Kawa Shigeyuki; Kiyosawa Kendo
AUTHOR ADDRESS: (a)The Second Department of Internal Medicine, Shinshu University School of Medicine, 3-1-1 Asahi, Matsumoto, 390-8621: yaoki55@hsp.md.shinshu-u.ac.jp**Japan
JOURNAL: Cancer Gene Therapy 8 (10):p783-787 October, 2001
MEDIUM: print
ISSN: 0929-1903
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: We have developed a potential tumor-targeting peptide **vector** (cRGD-hK) that is intended to be systemically and repeatedly administered to patients with advanced solid tumors. The peptide **vector** of 36 L-amino acid residues, CRGDCF K(H-)KKK)6, comprises a tumor-homing **RGD** motif, a **DNA** -binding oligolysine, and histidyl residues to facilitate the delivery into the cytosol. Using cytomegalovirus-driven luciferase expression plasmids as a reporter, we tested the transfection efficiency of cRGD-hK in hepatoma and pancreatic cancer cell lines. Transfection with the cRGD-hK plasmid complexes (molar ratio 4000:1) was inhibited by 10 nM bafilomycin A1, an inhibitor of the vacuolar ATPase endosomal proton pump, or 10 muM cyclcRGDfV, an integrin alphavbeta3 antagonist, indicating that the three elements of cRGD-hK could function as expected, at least in vitro. In nude mice bearing tumors created by subcutaneous inoculation, luciferase activity in the tumor **tissues** 48 hours after the injection of the cRGD-hK/plasmid complexes through the tail vein (20 mug plasmids per mouse) was significantly higher than that in the lung, kidney, and spleen, but only slightly higher than that in the liver. Although the latter difference was small, we propose a potential nonviral gene therapy for advanced solid tumors through use of the tumor-targeting peptide **vector** .

REGISTRY NUMBERS: 88899-55-2: BAFILOMYCIN A-1; 9014-00-0Q: LUCIFERASE; 61869-41-8Q: LUCIFERASE; 61969-99-1Q: LUCIFERASE; 61970-00-1Q: LUCIFERASE; 62213-54-1Q: LUCIFERASE; 76106-81-5Q: LUCIFERASE
DESCRIPTORS:
MAJOR CONCEPTS: Methods and Techniques; Molecular Genetics (Biochemistry and Molecular Biophysics); Tumor Biology
BIOSYSTEMATIC NAMES: Herpesviridae--Animal **Viruses** , **Viruses** , Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: HepG2 cell line (Hominidae)--human hepatoma cells; Hs766T cell line (Hominidae)--human pancreatic cancer cells; MIAPaCa-2 cell line (Hominidae)--human pancreatic cancer cells; PLC cell line {PRF cell line} (Hominidae)--human hepatoma cells; cytomegalovirus (Herpesviridae)--expression system; mouse (Muridae)--animal model, male, nude, strain-BALB/c
ORGANISMS: PARTS ETC: cytosol
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animal **Viruses** ; Animals; Chordates; Humans; Mammals; Microorganisms; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates; **Viruses**

CHEMICALS & BIOCHEMICALS: **DNA** -binding; ...lysine; **RGD** ...; bafilomycin A-1--vacuolar ATPase and...; histidyl residues; luciferase--expression; luciferase expression plasmids--reporter; tumor-targeting peptide **vector**
METHODS & EQUIPMENT: nonviral gene therapy--genetic method, therapeutic method
MISCELLANEOUS TERMS: transfection efficiency
CONCEPT CODES:
02506 Cytology and Cytochemistry-Animal
02508 Cytology and Cytochemistry-Human
03502 Genetics and Cytogenetics-General
03506 Genetics and Cytogenetics-Animal
03508 Genetics and Cytogenetics-Human
10502 Enzymes-General and Comparative Studies; Coenzymes
11506 Neoplasms and Neoplastic Agents-Pathology; Clinical Aspects; ...systemic effects
13002 Genetics of Bacteria and Viruses
13006 Virology-Animal Host Viruses
BIOSYSTEMATIC CODES:
05610 Herpesviridae (1988-)
86015 Hominidae
86075 Muridae

32/9/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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12347714 BIOSIS NO.: 200000003216
Structural characterization of mouse CD97 and study of its specific interaction with the murine decay-accelerating factor (DAF, CD55).
AUTHOR: Qian Y-M; Haino M; Kelly K; Song W-C(a)
AUTHOR ADDRESS: a)Center for Experimental Therapeutics, University of Pennsylvania School of Medicine, 421 Curie Boulevard, 1351 BRBII/III, Philadelphia, PA, 19104-6160USA
JOURNAL: Immunology 98 (2):p303-311 Oct., 1999
ISSN: 0019-2805
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: CD97 is a newly identified, activation-associated human leucocyte antigen with seven putative transmembrane domains. It has an extended extracellular segment containing several adhesion molecule structure motifs, and has been shown to interact with the human complement regulator, decay-accelerating factor (DAF, CD55). To understand further the interaction between CD97 and DAF, as well as the structure and function of CD97 in general, we have cloned the mouse CD97 cDNA and studied the encoded protein for its membrane association property and ability to interact specifically with the murine decay-accelerating factor. The full-length mouse CD97 cDNA that we have cloned and characterized encodes a protein that is 60% identical to the three epidermal growth factor (EGF) domain-containing form of human CD97 but does not contain the Arg-Gly-Asp (**RGD**) motif which is present in human CD97. Two other alternatively spliced forms of mouse CD97 were also identified. These forms differ by the number of EGF-like sequences present in the N-terminal region. Northern blot analysis revealed that CD97 is expressed widely in mouse **tissues** and in resting as well as activated cultured mouse splenocytes. Transient transfection of human embryonic kidney (HEK) 293 cells with the mouse CD97 cDNA in a green-fluorescence protein **vector** (pEGFP-N1) showed plasma membrane targeting of the expressed protein. Western blot analysis confirmed its membrane association and identified the existence of a processed C-terminal fragment, supporting the notion that CD97 on the cell membrane is composed of post-translationally generated subunits. Adhesion studies demonstrated that normal, but not DAF knockout mouse erythrocytes and splenocytes adhered to mouse CD97-transfected HEK cells. The interaction

[illegible] and DAF was [illegible] erythrocytes were [illegible] These results indicate that the [illegible] property and DAF-binding ability of CD97 are [illegible] adhesive interaction between CD97 and DAF is independent of the **RGD** motif. The finding that CD97 is distributed widely among various human **tissues** suggests that CD97 may have other roles beyond lymphocyte activation.

REGISTRY NUMBERS: 39085-47-9; DECAY-ACCELERATING FACTOR; 62229-50-9; EPIDERMAL GROWTH FACTOR
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Immune System (Chemical Coordination and Homeostasis)
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: 293 cell line (Hominidae)--human embryonic kidney cells; mouse (Muridae)
ORGANISMS: PARTS ETC: erythrocytes--blood and lymphatics; lymphocyte--blood and lymphatics, immune system; splenocytes--blood and lymphatics
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates
CHEMICALS & BIOCHEMICALS: CD97--HLA, human, mouse, structural characterization; arginyl-glycyl-aspartic acid motif; cDNA (complementary **DNA**); decay-accelerating factor (CD55, DAF)--murine; epidermal growth factor
MISCELLANEOUS TERMS: amino acid sequence; nucleotide sequence
CONCEPT CODES:
[illegible] Immunology and Immunochemistry-General; Methods
[illegible] Cytology and Cytochemistry-Human
[illegible] Biochemical Studies-General
[illegible] Metabolism-General Metabolism; Metabolic Pathways
[illegible] Blood, Blood-Forming Organs and Body Fluids-General; Methods
BIOSYSTEMATIC CODES:
[illegible] Hominidae
[illegible] Muridae

32/9/3 (Item 3 from file: 5)
DIALOG File 5:Biosis Previews(R)

[illegible] BIOSIS NO.: 199798815672
Increased in vitro and in vivo gene transfer by adenovirus **vectors containing chimeric fiber proteins.**
AUTHOR: Wickham Thomas J(a); Tzeng Edith; Shears Larry L Ii; Roelvink Peter W; Li Yuan; Lee Gai M; Brough Douglas E; Lizonova Alena; Kovesdi Imre
AUTHOR ADDRESS: (a)GenVec Inc., 12111 Parklawn Dr., Rockville, MD 20852** USA
JOURNAL: Journal of Virology 71 (11):p8221-8229 1997
ISSN: 0022-538X
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Alteration of the natural tropism of **adenovirus** (Ad) will permit gene transfer into specific cell types and thereby greatly broaden the scope of target diseases that can be treated by using Ad. We have constructed two Ad **vectors** which contain modifications to the Ad fiber coat protein that redirect **virus** binding to either alpha-v integrin (Ad5.F(**RGD**)) or heparan sulfate (Ad5.F(pK7)) cellular receptors. These **vectors** were constructed by a novel method involving E4 rescue of an E4-deficient Ad with a transfer **vector** containing both the E4 region and the modified fiber gene. Ad5.F**RGD** increased gene delivery to endothelial and smooth muscle cells expressing alpha-v integrins. Likewise, Ad5.F(pK7) increased transduction 5- to 500-fold in multiple cell types lacking high levels of Ad fiber receptor, including macrophage, endothelial, smooth muscle, fibroblast, and T cells. In

addition, Ad5.F[pK7] significantly increased gene transfer in vivo to vascular smooth muscle cells of the porcine iliac artery following balloon angioplasty. These **vectors** may therefore be useful in gene therapy for vascular restenosis or for targeting endothelial cells in tumors. Although binding to the fiber receptor still occurs with these **vectors**, they demonstrate the feasibility of **tissue**-specific receptor targeting in cells which express low levels of Ad fiber receptor.

REGISTRY NUMBERS: 9050-30-0: HEPARAN SULFATE
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry, and Molecular Biophysics; Blood and Lymphatics (Blood Transport and Circulation); Cardiovascular System (Transport and Circulation); Cell Biology; Genetics; Infection; Methods and Techniques; Microbiology; Muscular System (Movement and Support)
BIOSYSTEMATIC NAMES: Adenoviridae-- **Viruses**; Suidae--Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia
ORGANISM: **adenovirus** (Adenovirinae); pig (Suidae)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; artiodactyls; chordates; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; vertebrates; **viruses**
CHEMICALS & BIOCHEMICALS: HEPARAN SULFATE
MISCELLANEOUS TERMS: Research Article; ALPHA-INTEGRIN; BALLOON ANGIOPLASTY; BLOOD AND LYMPHATICS; CHIMERIC FIBER PROTEINS; CIRCULATORY SYSTEM; **DNA** TRANSFER METHOD; ENDOTHELIAL CELL; FIBROBLAST; GENE THERAPY DEVELOPMENT; GENE **VECTOR**; GENETIC METHOD; HEPARAN SULFATE; ILIAC ARTERY; IMMUNE SYSTEM; MACROPHAGE; METHODOLOGY; MOLECULAR GENETICS; MUSCULAR SYSTEM; SKELETAL SYSTEM; SMOOTH MUSCLE; T CELL; THERAPEUTIC METHOD; **TISSUE**-SPECIFIC RECEPTOR TARGETING; VIRAL TRANSFECTION; **VIRUS** CELLULAR RECEPTOR
CONCEPT CODES:
[illegible] Cytology and Cytochemistry-Animal
13503 Genetics and Cytogenetics-Animal
14062 Biochemical Methods-Nucleic Acids, Purines and Pyrimidines
14064 Biochemical Studies-Proteins, Peptides and Amino Acids
14066 Biochemical Studies-Carbohydrates
14401 Cardiovascular System-General; Methods
15001 Blood, Blood-Forming Organs and Body Fluids-General; Methods
15004 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies
15006 Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and Reticuloendothelial System
17341 Muscle-General; Methods
31504 Genetics of Bacteria and Viruses
34506 Virology-Animal Host Viruses
36006 Medical and Clinical Microbiology-Virology
BIOSYSTEMATIC CODES:
02601 Adenoviridae (1993-)
85740 Suidae

32/9/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
(c) 1996 BIOSIS. All rts. reserv.

09[illegible]94 BIOSIS NO.: 199548226712
A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.
AUTHOR: Konno Osamu; Muto Akihiko; Majiwara Susumu; Takagi Junichi; Saito Yuji; Shishido Kazuo(a)
AUTHOR ADDRESS: (a)Dept. Life Sci., Tokyo Inst. Technol., Nagatsuta, Midori-ku, Yokohama 227**Japan
JOURNAL: Gene (Amsterdam) 154 1):p81-87 1995
ISSN: 0378-1119
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A cDNA clone (designated mfbAc), encoding 2157 amino acids (aa),

was isolated from a mature fruiting-body cDNA library of the edible mushroom Lentinus edodes. The MFBA transcript was abundant in mature fruiting bodies, detectable in immature fruiting bodies but absent in earlier developmental stages and in the vegetative mycelium. Although more abundant in the pileus than the stipe, [illegible] levels were [illegible] in the gill **tissue** . The deduced MFBA protein ([illegible] kDa) contained a cell-surface attachment-promoting Arg-Gly-Asp (**RGD**) motif. MFBA was produced in Escherichia coli using a maltose-binding protein (MBP) fusion **vector** , but it was cleaved into four fragments even in a protease-deficient host. A 425-aa MFBA peptide containing the **RGD** motif (named MFBA(532-1006) peptide) was successfully produced using the phage T7 expression system. This MFBA(532-1006) peptide exhibited a cell adhesion and spreading activity toward mammalian cells. This activity of the MFBA fragment was competitively inhibited by the Gly-Arg-Gly-Asp-Ser-Pro peptide but not by the Gly-Arg-Gly-Glu-Ser-Pro peptide, showing that the **RGD** motif of MFBA is essential for the cell-binding activity.

DESCRIPTORS:
  MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Genetics; Membranes (Cell Biology); Molecular Genetics (Biochemistry and Molecular Biophysics); Reproduction
  BIOSYSTEMATIC NAMES: Basidiomycetes--Fungi, Plantae; Fungi-Unspecified--Fungi, Plantae; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
  ORGANISMS: Basidiomycetes (Fungi - Unspecified); Lentinus edodes (Basidiomycetes); Muridae (Muridae)
  BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; fungi; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; nonvascular plants; plants; rodents; vertebrates
MOLECULAR SEQUENCE DATABANK NUMBER: amino acid sequence; molecular sequence data; nucleotide sequence; DDBJ-D01209; EMBL-D01209; GENBANK-D01209
  MISCELLANEOUS TERMS: COMPLEMENTARY **DNA** ; GILL **TISSUE** ; MOUSE B16 CELLS; PILEUS; **RGD** MOTIF; SPREADING ACTIVITY; STIPE; **TISSUE** SPECIFIC GENE EXPRESSION
CONCEPT CODES:
  02504 Cytology and Cytochemistry-Plant
  02506 Cytology and Cytochemistry-Animal
  03504 Genetics and Cytogenetics-Plant
  10062 Biochemical Studies-Nucleic Acids, Purines and Pyrimidines
  10064 Biochemical Studies-Proteins, Peptides and Amino Acids
  10300 Replication, Transcription, Translation
  10508 Biophysics-Membrane Phenomena
  51510 Plant Physiology, Biochemistry and Biophysics-Reproduction
  51522 Plant Physiology, Biochemistry and Biophysics-Chemical Constituents
BIOSYSTEMATIC CODES:
  15500 Basidiomycetes
  86375 Muridae

32/9/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0966[illegible]91 BIOSIS NO.: 199598118709
Recombinant Domain III of Perlecan Promotes Cell Attachment through Its RGDS Sequence.
AUTHOR: Chakravarti Shukti; Horchar Teresa; Jefferson Bahiyyah; Laurie Gordon W; Hassell John R(a)
AUTHOR ADDRESS: (a)Dep. Ophthalmol., Univ. Pittsburgh Sch. Med., Eye Ear Inst., 203 Lothrop St., Pittsburgh, PA 152**USA
JOURNAL: Journal of Biological Chemistry 270 (1):p404-409 1995
ISSN: 0021-9258
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Perlecan has been previously been shown to support attachment [illegible] a wide variety of cells through interactions of its core protein with the cell surface. The core protein domains involved in cell adhesion are, however, unknown. The laminin-like domain III of murine perlecan contains an RGDS sequence and is a likely candidate for supporting integrin-mediated cell attachment. We made a cDNA construct corresponding to domain III and laminin in frame signal peptide at the 5' end as well as [illegible] at the 3' end by using cDNA encoding [illegible]. The construct was inserted into the pBCMGS **vector** and [illegible], and the secreted recombinant domain III, a 73-kDa protein, was purified from the medium. Its size of proteolytic fragments produced by digestion with Pa protease as well as analysis of the rotary shadowed image of the recombinant protein indicated it was produced in a native conformation. Recombinant domain III coated on **tissue** culture dishes, supports adhesion of an epithelial-like murine mammary tumor cell line JMT 360562 in a dose-dependent manner. This interaction was inhibited specifically by the RGDS synthetic peptide and integrin perlecan, but not laminin. This domain III **RGD** -dependent cell attachment activity indicates a role for perlecan in integrin-mediated signaling.

REGISTRY NUMBERS: 153-87-7Q: INTEGRIN; 60791-49-3Q: INTEGRIN
DESCRIPTORS:
MAJOR CONCEPTS: Cell Biology; Genetics; Membranes (Cell Biology); Metabolism
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISM: human (Hominidae)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; humans; mammals; primates; vertebrates
CHEMICALS & BIOCHEMICALS: INTEGRIN
MISCELLANEOUS TERMS: COMPLEMENTARY **DNA** ; HT1080 CELL LINE; INTEGRIN-MEDIATED SIGNALLING; PERLECAN
CONCEPT CODES:
[illegible] Cytology and Cytochemistry-Human
[illegible] Genetics and Cytogenetics-Human
[illegible] Biophysics-Membrane Phenomena
[illegible] Metabolism-Proteins, Peptides and Amino Acids
[illegible] Metabolism-Nucleic Acids, Purines and Pyrimidines
[illegible] Biochemical Studies-Nucleic Acids, Purines and Pyrimidines
[illegible] Biochemical Studies-Proteins, Peptides and Amino Acids
[illegible] Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
[illegible] Hominidae

32/9/6 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12 [illegible] 21643924 PMID: 11687901
Potential tumor-targeting peptide vector of histidylated oligolysine conjugated to a tumor-homing RGD motif.
[illegible] Y; Kissel T; Read M; Hirosawa K
The Second Department of Internal Medicine, Shinshu University School of Medicine, Matsumoto, Japan. yaoki55@hsp.md.shinshu-u.ac.jp
Cancer gene therapy (England) Oct 2001, 8 (10) p783-7, ISSN 0929-1903 Journal Code: 9432250
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
We have developed a potential tumor-targeting peptide **vector** (cRGD-hK) that is intended to be systemically and repeatedly administered to patients with advanced solid tumors. The peptide **vector** of 36 l-amino acid residues, CRGDCF(K[H-]KKK)6, comprises a tumor-homing **RGD** motif, a **DNA** -binding oligolysine, and histidyl residues to facilitate the delivery into the cytosol. Using cytomegalovirus-driven luciferase expression plasmids as

a reporter, we tested the transfection activity of cRGD-hK in lung and pancreatic cancer cell lines. Transfection with the cRGD-hK plasmid complexes (molar ratio 440:1) was inhibited by 1 nM bafilomycin A1, an inhibitor of the vacuolar ATPase proton pump, and by 0.1 mM cycloRGDfV, an integrin alphavbeta3 antagonist, indicating that the three elements of cRGD-hK could function as expected, at least in vitro. In nude mice bearing tumors created by subcutaneous inoculation, luciferase activity in the tumor **tissues** 48 hours after the injection of the cRGD-hK/plasmid complexes through the tail vein (1 microg plasmid per mouse) was significantly higher than that in the lung, kidney, and spleen, but only slightly higher than that in the liver. Although the latter difference was small, we propose a potential nonviral gene therapy for advanced solid tumors through use of the tumor-targeting peptide **vector**.

Tags: Animal; Human; Male; Support, Non-U.S. Gov't

Descriptors: Gene Therapy--methods--MT; *Genetic **Vectors**; *Histidine; *Liver Neoplasms, Experimental--therapy--TH; *Oligopeptides--genetics--GE; *Pancreatic Neoplasms--therapy--TH; *__**Polylysine**__--genetics--GE; Antibiotics, Macrolide--pharmacology--PD; Enzyme Inhibitors--pharmacology--PD; Liver Neoplasms, Experimental--metabolism--ME; Liver Neoplasms, Experimental--pathology--PA; Luciferase--metabolism--ME; Mice; Mice, Inbred BALB C; Mice, Nude; Oligopeptides--pharmacokinetics--PK; Pancreatic Neoplasms--metabolism--ME; Pancreatic Neoplasms--pathology--PA; Plasmids; **Polylysine**--pharmacokinetics--PK; Proton-Translocating ATPases--antagonists and inhibitors--AI; **Tissue** Distribution; Tumor Cells, Cultured

CAS Registry No.: 0 (Antibiotics, Macrolide); 0 (Enzyme Inhibitors); 0 (Genetic Vectors); 0 (Oligopeptides); 0 (Plasmids); 25104-18-1 (Polylysine); 71-00-1 (Histidine); 88899-55-2 (bafilomycin A1); 99284-81-2 (arginyl-glycyl-aspartic acid)

Enzyme No.: EC 1.11.12.- (Luciferase); EC 3.6.3.14 (Proton-Translocating ATPases)

Record Date Created: 20011031

32/9/7 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08423136 95172398 PMID: 7867945

A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.

Kawaguchi O; Muta A; Kajiwara S; Takagi T; Saito Y; Shishido K

Department of Life Science, Tokyo Institute of Technology, Yokohama, Japan.

Gene NETHERLANDS Feb 27 1995, 154 (1) p91-7, ISSN 0378-1119 Journal Code: 7706761

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

A cDNA clone (designated mfbAc), encoding 2157 amino acids (aa), was isolated from a mature fruiting-body cDNA library of the edible mushroom Lentinus edodes. The mfbA transcript was abundant in mature fruiting bodies, detectable in immature fruiting bodies but absent in earlier developmental stages and in the vegetative mycelium. Although more abundant in the pileus than the stipe, only low levels were found in the gill **tissue**. The deduced MFBA protein (234.5 kDa) contained a cell-surface attachment-promoting Arg-Gly-Asp (**RGD**) motif. MFBA was produced in Escherichia coli using a maltose-binding protein (MBP) fusion **vector**, but it was cleaved into four fragments even in a protease-deficient host. A 425-aa MFBA peptide containing the **RGD** motif (named MFBA(582-1006) peptide) was successfully produced using the phage T7 expression system. This MFBA(582-1006) peptide exhibited a cell adhesion and spreading activity toward mammalian cells. This activity of the MFBA fragment was competitively inhibited by the Gly-Arg-Gly-Asp-Ser-Pro peptide but not by the Gly-Arg-Gly-Glu-Ser-Pro peptide, showing that the **RGD** motif of MFBA is essential for the cell-binding activity.

II collagen antibody-induced arthritis in mice.
Apr 2 2002
Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Arthritis--pathology--PA; *Cartilage, Articular--pathology--PA; *Collagen Type II--immunology--IM; *Glial Fibrillary Acidic Protein--physiology--PH; Apoptosis; Arthritis--metabolism--ME; *Chondrocytes--pathology--PA; Lipopolysaccharides--pharmacology--PD; Mice; Mice, Inbred C57BL; Neovascularization, Pathologic--prevention and control--PC; Sialoglycoproteins--deficiency--DE; Tumor Necrosis Factor--biosynthesis--BI
CAS Registry No.: 0 (Collagen Type II); 0 (Lipopolysaccharides); 0 (Sialoglycoproteins); 0 (Tumor Necrosis Factor); 106441-73-0 (osteopontin)

17/8/41 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13118998 21141778 PMID: 11920687
alpha v-Integrin antagonist EMD 121974 induces apoptosis in brain tumor cells growing on vitronectin and tenascin.
Apr 15 2002
Tags: Animal; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Apoptosis--drug effects--DE; *Brain Neoplasms--pathology--PA; *Glioblastoma--pathology--PA; *Integrins--antagonists and inhibitors--AI; *Medulloblastoma--pathology--PA; *Peptides, Cyclic--pharmacology--PD; *Receptors, Vitronectin--antagonists and inhibitors--AI; Brain Neoplasms--metabolism--ME; Cell Adhesion--drug effects--DE; Cell Division--drug effects--DE; Collagen--metabolism--ME; Flow Cytometry; Fluorescent Antibody Technique; Glioblastoma--metabolism--ME; Immunoenzyme Techniques; In Situ Nick-End Labeling; Integrins--metabolism--ME; Medulloblastoma--metabolism--ME; Mice; Mice, Nude; Receptors, Vitronectin--metabolism--ME; Tenascin--metabolism--ME; Tumor Cells, Cultured--drug effects--DE; Tumor Cells, Cultured--metabolism--ME; Tumor Cells, Cultured--pathology--PA; Vitronectin--metabolism--ME
CAS Registry No.: 0 (EMD 121974); 0 (Integrins); 0 (Peptides, Cyclic); 0 (Receptors, Vitronectin); 0 (Tenascin); 0 (Vitronectin); 0 (integrin alphaVbeta5); 9007-34-5 (Collagen)

17/8/42 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13010034 21652405 PMID: 11792136
Preparation and functional evaluation of RGD -modified proteins as alpha(v)beta(3) integrin directed therapeutics.
Jan-Feb 2002
Tags: Human
Descriptors: **Angiogenesis** Inhibitors--chemical synthesis--CS; **Angiogenesis** Inhibitors--pharmacology--PD; *Oligopeptides--chemistry--CH; *Proteins--chemistry--CH; *Proteins--pharmacology--PD; *Receptors, Vitronectin--drug effects--DE; Cell Adhesion--drug effects--DE; Chromatography, Gel; Electrophoresis, Polyacrylamide Gel; Endothelium, Vascular--drug effects--DE; Endothelium, Vascular--metabolism--ME; Immunoglobulin G--chemistry--CH; Peptides--chemistry--CH
CAS Registry No.: 0 (Angiogenesis Inhibitors); 0 (Immunoglobulin G); 0 (oligopeptides); 0 (Peptides); 0 (Proteins); 0 (Receptors, Vitronectin); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/43 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12987548 21863658 PMID: 11875744
Inhibition of the alpha-nu integrins with a cyclic RGD peptide impairs angiogenesis , growth and metastasis of solid tumours in vivo.
Mar 4 2002
Tags: Animal; Male
Descriptors: *Antigens, CD--pharmacology--PD; *Antineoplastic Agents

--pharmacology--PD; *Melanoma--pathology--PA; *Neovascularization, Pathologic; *Oligopeptides--pharmacology--PD; *Skin Neoplasms--pathology--PA; Endothelium--cytology--CY; Endothelium--pathology--PA; Hamsters; Infusions, Parenteral; Leukocytes--immunology--IM; Microcirculation; Neoplasm Metastasis; Neoplasms, Experimental
CAS Registry No.: 0 (Antigens, CD); 0 (Antineoplastic Agents); 0 (Oligopeptides); 0 (Integrin alpha); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/44 (Item 9 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12951115 21637355 PMID: 11779385
Integrins as targets of angiogenesis inhibition.
Nov-Dec 2001
Tags: Animal; Human
Descriptors: **Angiogenesis** Inhibitors--therapeutic use--TU; *Antineoplastic Agents--therapeutic use--TU; *Receptors, Vitronectin--antagonists and inhibitors--AI; Drug Design; Neovascularization, Pathologic--metabolism--ME; Neovascularization, Pathologic--pathology--PA; Oligopeptides--antagonists and inhibitors--AI
CAS Registry No.: 0 (Angiogenesis Inhibitors); 0 (Antineoplastic Agents); 0 (Oligopeptides); 0 (Receptors, Vitronectin); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/45 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12301405 21581213 PMID: 11723742
Inhibition of hepatic metastasis in mice treated with cell-binding domain of human fibronectin and angiogenesis inhibitor TNP-470.
Oct 2001
Tags: Animal; Male; Support, Non-U.S. Gov't
Descriptors: **Angiogenesis** Inhibitors--therapeutic use--TU; *Colorectal Neoplasms; *Fibronectins--chemistry--CH; *Liver Neoplasms--prevention and control--PC; *Liver Neoplasms--secondary--SC; *Oligopeptides--therapeutic use--TU; *Sesquiterpenes--therapeutic use--TU; Disease Models, Animal; Mice; Tumor Cells, Cultured
CAS Registry No.: 0 (Angiogenesis Inhibitors); 0 (Fibronectins); 0 (Oligopeptides); 0 (Sesquiterpenes); 129298-91-3 (O-(chloroacetylcarbamoyl)fumagillol)

17/8/46 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12816114 21648243 PMID: 11788463
Shear stress-induced endothelial cell migration involves integrin signaling via the fibronectin receptor subunits alpha(5) and beta(1).
Jan 2002
Tags: Human; Support, Non-U.S. Gov't
Descriptors: *1-Phosphatidylinositol 3-Kinase--metabolism--ME; *Cell Movement--physiology--PH; *Endothelium, Vascular--physiology--PH; *Hemorheology; *Mitogen-Activated Protein Kinases--metabolism--ME; *Protein-Tyrosine Kinase--metabolism--ME; *Receptors, Fibronectin--physiology--PH; *Receptors, Vitronectin--physiology--PH; Cells, Cultured; Endothelium, Vascular--cytology--CY; Phosphorylation; Signal Transduction; Umbilical Veins--cytology--CY; Up-Regulation
CAS Registry No.: 0 (Receptors, Fibronectin); 0 (Receptors, Vitronectin)
Enzyme No.: EC 2.7.1.- (Mitogen-Activated Protein Kinases); EC 2.7.1.- (endogenous substrate pp120); EC 2.7.1.112 (Protein-Tyrosine Kinase); EC 2.7.1.137 (1-Phosphatidylinositol 3-Kinase)

17/8/47 (Item 12 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

12750057 21617164 PMID: 11741564

Domain IVa of laminin alpha5 chain is cell-adhesive and binds beta1 and alphaVbeta3 integrins through Arg-Gly-Asp.

Dec 7 2001

Tags: Animal; Human; Support, Non-U.S. Gov't

Descriptors: *Antigens, CD29--metabolism--ME; *Cell Adhesion Molecules --metabolism--ME; *Laminin--metabolism--ME; *Oligopeptides--metabolism--ME; *Receptors, Vitronectin--metabolism--ME; Binding Sites; Cell Adhesion; Cell Adhesion Molecules--genetics--GE; Cell Adhesion Molecules--isolation and purification--IP; Kidney--cytology--CY; Laminin--genetics--GE; Laminin --isolation and purification--IP; Melanoma, Experimental; Mice; Muscle, Skeletal--cytology--CY; Peptide Fragments--genetics--GE; Peptide Fragments --isolation and purification--IP; Peptide Fragments--metabolism--ME; Protein Structure, Tertiary; Recombinant Proteins--metabolism--ME

CAS Registry No.: 0 (Antigens, CD29); 0 (Cell Adhesion Molecules); 0 (Laminin); 0 (Oligopeptides); 0 (Peptide Fragments); 0 (Receptors, Vitronectin); 0 (Recombinant Proteins); 0 laminin alpha5); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/48 (Item 13 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

12686917 21571267 PMID: 11714689

Suppression of murine collagen-induced arthritis by targeted apoptosis of synovial neovasculature.

2001

Tags: Animal; Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: *Apoptosis; *Arthritis, Experimental--therapy--TH; *Gene Therapy--methods--MT; *Neovascularization, Pathologic--therapy--TH; *Oligopeptides--pharmacology--PD; *Synovial Membrane--blood supply--BS; Arthritis, Experimental--immunology--IM; Arthritis, Experimental --pathology--PA; Bacteriophage M13--genetics--GE; Binding, Competitive; Collagen; Drug Delivery Systems--methods--MT; In Situ Nick-End Labeling; Integrins--metabolism--ME; Mice; Mice, Inbred DBA; Neovascularization, Pathologic--pathology--PA; Peptide Fragments--pharmacology--PD; Receptors, Vitronectin--metabolism--ME; Synovial Membrane--immunology--IM

CAS Registry No.: 0 (Integrins); 0 (Oligopeptides); 0 (Peptide Fragments); 0 Receptors, Vitronectin); 0 (integrin alphaVbeta3); 9007-34-5 (Collagen); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/49 (Item 14 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

12587648 21534174 PMID: 11676501

A novel synthetic Arg-Gly-Asp-containing peptide cyclo(-RGDf==V-) is the potent inhibitor of angiogenesis .

Nov 2 **2001**

Tags: Animal; Human; Male; Support, Non-U.S. Gov't

Descriptors: *Endothelium, Vascular--drug effects--DE; *Neovascularizatio n, Pathologic--pathology--PA; *Oligopeptides--pharmacology--PD; *Peptides, Cyclic--pharmacology--PD; Binding Sites; Cells, Cultured; Disease Models, Animal; Endothelium, Vascular--physiology--PH; Mice; Mice, Inbred BALB C; Mice, Nude; Neoplasm Transplantation; Neoplasms, Experimental--drug therapy --DT; Neovascularization, Pathologic--drug therapy--DT; Oligopeptides --therapeutic use--TU; Peptides, Cyclic--therapeutic use--TU

CAS Registry No.: 0 (Oligopeptides); 0 (Peptides, Cyclic); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/50 (Item 15 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

12519267 21333332 PMID: 11440276

Topical application of integrin antagonists inhibits proliferative

retinopathy.
May 2001
Tags: Animal; Support, Non-U.S. Gov't
Descriptors: *Diabetic Retinopathy--drug therapy--DT; *Oligopeptides--therapeutic use--TU; *Receptors, Vitronectin--antagonists and inhibitors--AI; Adhesiveness; Administration, Topical; Anemia--pathology--PA; Mice; Mice, Inbred C57BL; *Neovascularization, Pathologic--drug therapy--DT; Neovascularization, Pathologic--pathology--PA; Oligopeptides--administration and dosage--AD; Oligopeptides--metabolism--ME; Ophthalmic Solutions; Retina--metabolism--ME
CAS Registry No.: 0 (Oligopeptides); 0 (Ophthalmic Solutions); 0 (Receptors, Vitronectin); 99896-85-6 (arginyl-glycyl-aspartic acid)

17/8/51 (Item 16 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11338846 21402894 PMID: 11399762
Extracellular matrix-derived peptide binds to alpha(v)beta(3) integrin and inhibits angiogenesis .
Aug 24 2001
Tags: Animal; Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Autoantigens--metabolism--ME; *Collagen--metabolism--ME; *Extracellular Matrix Proteins--metabolism--ME; *Neovascularization, Pathologic; *Neovascularization, Physiologic; *Receptors, Vitronectin--metabolism--ME; Alkylation; Amino Acid Sequence; Apoptosis--drug effects--DE; Autoantigens--chemistry--CH; Autoantigens--pharmacology--PD; Caspases--metabolism--ME; Cattle; Cell Cycle--drug effects--DE; Cell Division--drug effects--DE; Cells, Cultured; Collagen--chemistry--CH; Collagen--pharmacology--PD; Disulfides--metabolism--ME; Endothelium, Vascular--cytology--CY; Endothelium, Vascular--drug effects--DE; Enzyme Activation; Extracellular Matrix Proteins--chemistry--CH; Mice; Mice, Inbred C57BL; Molecular Sequence Data; Oxidation-Reduction; Protein Binding; Recombinant Proteins--chemistry--CH; Recombinant Proteins--metabolism--ME; Recombinant Proteins--pharmacology--PD; Tumor Cells, Cultured; Vitronectin--metabolism--ME
CAS Registry No.: 0 (Autoantigens); 0 (Disulfides); 0 (Extracellular Matrix Proteins); 0 (Goodpasture antigen); 0 (Receptors, Vitronectin); 0 (Recombinant Proteins); 0 (Vitronectin); 9007-34-5 (Collagen)
Enzyme No.: EC 3.4.22.- (CPP32 protein); EC 3.4.22.- (Caspases)

17/8/52 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11460247 21353558 PMID: 11461496
Role of fibrin matrix in angiogenesis .
2001
Tags: Animal; Human
Descriptors: *Fibrin--physiology--PH; *Neovascularization, Physiologic--physiology--PH
CAS Registry No.: 9001-31-4 (Fibrin)

17/8/53 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11390613 21325999 PMID: 11403393
Thiolutin, an inhibitor of HUVEC adhesion to vitronectin, reduces paxillin in HUVECs and suppresses tumor cell-induced angiogenesis .
Aug 1 2001
Tags: Animal; Female; Human
Descriptors: *Antibiotics, Antifungal--pharmacology--PD; *Cell Adhesion Molecules--metabolism--ME; *Cytoskeletal Proteins--metabolism--ME; *Endothelium, Vascular--metabolism--ME; *Neovascularization, Pathologic--prevention and control--PC; *Phosphoproteins--metabolism--ME; *Pyrrolidinones--pharmacology--PD; *Vitronectin--metabolism--ME; Antibiotics

s, Antifungal--isolation and purification--IP; Blotting, Western; Cell Adhesion--drug effects--DE; Dose-Response Relationship, Drug; Down-Regulation; Immunoblotting; Mice; Mice, Inbred ICR; Peptides --pharmacology--PD; Platelet Aggregation Inhibitors--pharmacology--PD; Precipitin Tests; Pyrrolidinones--isolation and purification--IP; Receptors, Vitronectin--metabolism--ME; Tumor Cells, Cultured--drug effects --DE; Umbilical Veins; Vitronectin--antagonists and inhibitors--AI
CAS Registry No.: [illegible] (Antibiotics, Antifungal); [illegible] (Cell Adhesion Molecules); 0 (Cytoskeletal Proteins); 0 (Peptides); [illegible] (Phosphoproteins); 0 (Platelet Aggregation Inhibitors); [illegible] (Pyrrolidinones); [illegible] (Receptors, Vitronectin); [illegible] (Vitronectin); [illegible] (paxillin); [illegible]-11-4 (echistatin); [illegible]-11-4 (echistatin)

17/8/54 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11348950 21280863 PMID: 11387236
An angiogenic laminin site and its antagonist bind through the alpha(v)beta3 and alpha5beta1 integrins.
Jun 2001
Tags: Animal
Descriptors: *Integrins--metabolism--ME; *Laminin--metabolism--ME; *Neovascularization, Physiologic--physiology--PH; *Receptors, Laminin --metabolism--ME; *Receptors, Vitronectin--metabolism--ME; Amino Acid Sequence; Aorta--growth and development--GD; Binding Sites; Cell Adhesion; Chick Embryo; Fibroblast Growth Factor 2--antagonists and inhibitors--AI; Integrins--immunology--IM; Laminin--antagonists and inhibitors--AI; Mitogen-Activated Protein Kinases--metabolism--ME; Molecular Sequence Data; Peptide Fragments--antagonists and inhibitors--AI; Peptide Fragments --metabolism--ME; Protein Binding; Rats; Receptors, Laminin--immunology--IM ; Receptors, Vitronectin--immunology--IM
CAS Registry No.: 0 (Integrins); 0 (Laminin); 0 (Peptide Fragments) ; 0 (Receptors, Laminin); 0 (Receptors, Vitronectin); 0 (integrin alpha5beta1); 0 (laminin 1); 103107-01-3 (Fibroblast Growth Factor 2)
Enzyme No.: EC 2.7.1.- (Mitogen-Activated Protein Kinases)

17/8/55 (Item 20 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11335741 21349416 PMID: 11356030
Spinal cord repair with PHPMA hydrogel containing RGD peptides (NeuroGel).
May 2001
Tags: Animal; Female
Descriptors: *Biocompatible Materials; *Polymethacrylic Acids; *Spinal Cord Injuries--therapy--TH; Animals, Newborn; Biocompatible Materials --chemistry--CH; Hydrogels; Materials Testing; Microscopy, Electron; Microscopy, Electron, Scanning; Nerve Regeneration; Oligopeptides; Polymethacrylic Acids--chemistry--CH; Rats; Rats, Sprague-Dawley; Spinal Cord Injuries--pathology--PA; Spinal Cord Injuries--physiopathology--PP
CAS Registry No.: 0 (Biocompatible Materials); 0 (Hydrogels); 0 (Oligopeptides); 0 (Polymethacrylic Acids); 40704-75-4 (Duxon); 99896-85-2 arginyl-glycyl-aspartic acid)

17/8/56 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11306594 21226771 PMID: 11278365
Identification of the anti- angiogenic site within vascular basement membrane-derived tumstatin.
May 4 2001
Tags: Animal; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: **Angiogenesis** Inhibitors--chemistry--CH; *Autoantigens --chemistry--CH; *Collagen--chemistry--CH; *Endothelium, Vascular --chemistry--CH; **Angiogenesis** Inhibitors--isolation and purification--IP;

Autoantigens--genetics--GE; Autoantigens--[illegible]; Basement Membrane--chemistry--CH; Caspases--metabolism--ME; Cattle; Cell Division; Cell Line; Collagen--genetics--GE; Collagen--isolation and purification--IP; Endothelium, Vascular--cytology--CY; Endothelium, Vascular--metabolism--ME; Mice; Recombinant Proteins--chemistry--CH; Recombinant Proteins--genetics--GE

CAS Registry No.: 0 (Angiogenesis Inhibitors); 0 (Autoantigens); 0 (Goodpasture antigen); 0 (Recombinant Proteins); 9007-34-5 (Collagen)

Enzyme No.: EC 3.4.22.- (CPP32 protein); EC 3.4.22.- (Caspases)

17/8/57 (Item 22 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

[illegible] PMID: 11267722

Noninvasive imaging of alpha(v)beta3 integrin expression using 18F-labeled RGD-containing glycopeptide and positron emission tomography.

Mar 1 **2001**

Tags: Animal; Female; Human; Support, Non-U.S. Gov't

Descriptors: *DNA-Binding Proteins--genetics--GE; *Fluorine Radioisotopes--diagnostic use--DU; *Neoplasms, Experimental--radionuclide imaging--RI; *Radiopharmaceuticals--diagnostic use--DU; *Receptors, Vitronectin--metabolism--ME; *Transcription Factors--genetics--GE; *Tumor Markers, Biological--metabolism--ME; Azides--chemistry--CH; DNA-Binding Proteins--immunology--IM; Fibrinogen--metabolism--ME; Isotope Labeling; Melanoma--metabolism--ME; Melanoma--radionuclide imaging--RI; Mice; Mice, Inbred BALB C; Mice, Nude; Neoplasm Transplantation; Neoplasms, Experimental--metabolism--ME; Osteosarcoma--metabolism--ME; Osteosarcoma--radionuclide imaging--RI; Peptides, Cyclic--chemistry--CH; Peptides, Cyclic--pharmacology--PD; Radiopharmaceuticals--chemical synthesis--CS; Radiopharmaceuticals--pharmacokinetics--PK; Receptors, Vitronectin--antagonists and inhibitors--AI; Tissue Distribution; Tomography, Emission-Computed; Transcription Factors--immunology--IM; Transplantation, Heterologous; Tumor Markers, Biological--antagonists and inhibitors--AI; Vitronectin--metabolism--ME

CAS Registry No.: 0 (Azides); 0 (DNA-Binding Proteins); 0 (Fluorine Radioisotopes); 0 (NY-BR-1 protein); 0 (Peptides, Cyclic); 0 (Radiopharmaceuticals); 0 (Receptors, Vitronectin); 0 (Transcription Factors); 0 (Tumor Markers, Biological); 0 (Vitronectin); 0 (cyclic (arginyl-glycyl-aspartyl-phenylalanyl-lysyl)); 0 (cyclo(arginyl-glycyl-aspartyl-phenylalanyl-valyl)); 178181-33-4 (4-nitrophenyl 2-fluoropropionate); 9001-32-5 (Fibrinogen)

17/8/58 (Item 23 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

11539595 21096554 PMID: 11539525

Aberrant fibrin formation and cross-linking of fibrinogen Nieuwegein, a variant with a shortened Aalpha-chain, alters endothelial capillary tube formation.

Feb 15 **2001**

Tags: Case Report; Human; Male

Descriptors: *Afibrinogenemia--genetics--GE; *Capillaries--pathology--PA; *Endothelium, Vascular--ultrastructure--UL; *Fibrin--ultrastructure--UL; *Fibrinogens, Abnormal--chemistry--CH; *Mutagenesis, Insertional; *Neovascularization, Physiologic--genetics--GE; Adult; Afibrinogenemia--pathology--PA; Biopolymers; Cells, Cultured; Codon, Terminator; Exons--genetics--GE; Fibrin--biosynthesis--BI; Fibrin--chemistry--CH; Fibrinogens, Abnormal--genetics--GE; Microscopy, Electron; Molecular Weight; Oligopeptides--physiology--PH; Partial Thromboplastin Time; Receptors, Vitronectin--immunology--IM; Receptors, Vitronectin--physiology--PH; Sequence Deletion; Structure-Activity Relationship; Transglutaminases--metabolism--ME

CAS Registry No.: 0 (Biopolymers); 0 (Codon, Terminator); 0 (Fibrinogens, Abnormal); 0 (Oligopeptides); 0 (Receptors, Vitronectin); 0 (fibrinogen Nieuwegein); 9001-31-4 (Fibrin); 99896-85-2 (arginyl-glycyl-aspartic acid)

Enzyme No.: EC 2.3.2.13 Transglutaminases

17/8/59 (Item 24 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11085295 21084280 PMID: 11216533
Glycosylated RGD -containing peptides: tracer for tumor targeting and angiogenesis imaging with improved biokinetics.
Feb 2001
Tags: Animal; human; Support, Non-U.S. Gov't
Descriptors: *Melanoma, Experimental--radionuclide imaging--RI; *Neovascularization, Pathological--radionuclide imaging--RI; *Oligopeptides --diagnostic use--DU; *Oligopeptides--radionuclide imaging--RI; Extracellular Matrix Proteins--metabolism--ME; Glycosylation; Integrins --metabolism--ME; Iodine Radioisotopes--diagnostic use--DU; Melanoma, Experimental--metabolism--ME; Mice; Mice, Inbred BALB C; Mice, Nude; Neoplasm Transplantation; Oligopeptides--chemical synthesis--CS; Oligopeptides--pharmacokinetics--PK; Osteosarcoma--blood supply--BS; Osteosarcoma--metabolism--ME; Receptors, Vitronectin--metabolism--ME
CAS Registry No.: 0 (Extracellular Matrix Proteins); 0 (Integrins); 0 (Iodine Radioisotopes); 0 (Oligopeptides); 0 (Receptors, Vitronectin); 99896-85-2 arginyl-glycyl-aspartic acid)

17/8/60 (Item 1 from file: 172)
DIALOG(R)File 172:(c) 2002 Elsevier Science B.V. All rts. reserv.

0267011 EMBASE No: 20023372?2
Plasmin-induced migration of endothelial cells: A potential target for the anti- angiogenic action of angiostatin
2002

17/8/61 (Item 2 from file: 172)
DIALOG(R)File 172:(c) 2002 Elsevier Science B.V. All rts. reserv.

0262560 EMBASE No: 20022799?2
Ligand-targeted liposomes directed against pathological vasculature
2002
AUTHOR KEYWORDS: **Angiogenesis** ; Integrins; **RGD** -peptide; Drug targeting ; Liposomes

17/8/62 (Item 3 from file: 172)
DIALOG(R)File 172:(c) 2002 Elsevier Science B.V. All rts. reserv.

0261437 EMBASE No: 20012697?9
Ligands to the integrin receptor alphaSUBvbetaSUB3
2002
AUTHOR KEYWORDS: alphaSUBvbetaSUB3 integrin; **Angiogenesis** ; Arthritis; Bone resorption; Osteoclast; Osteoporosis; Vitronectin receptor

17/8/63 (Item 4 from file: 172)
DIALOG(R)File 172:(c) 2002 Elsevier Science B.V. All rts. reserv.

0212836 EMBASE No: 2001230789
Thiolutin, an inhibitor of huvec adhesion to vitronectin, reduces paxillin in huvecs and suppresses tumor cell-induced angiogenesis
2001
AUTHOR KEYWORDS: Thiolutin; Paxillin; HUVEC; Vitronectin; Tumor **angiogenesis**
?s s17 and ser or thr or cys) and (asn or gln)
63 S17
34718 SER
21433 THR
21499 CYS

```
          151?1  ASN
          13769  GLN
     S18      1  S17 AND (SER OR THR OR CYS) AND (ASN OR GLN)
?s angiogen? and ("ser asn ser" or "ser gln ser")
          368.   ANGIOGEN?
                 368 ASN SER
                 368 GLN SER
     S19      0  ANGIOGEN? AND ("SER ASN SER" OR "SER GLN SER")
?s angiogen? and ("ser-asn-ser" or "ser-gln-ser")
          368?   ANGIOGEN?
                 368-ASN-SER
                 368-GLN-SER
     S20      0  ANGIOGEN? AND ("SER-ASN-SER" OR "SER-GLN-SER")
?s angiogen? and ("sns" or "sqs")
          36827  ANGIOGEN?
           1749  SNS
             75  SQS
     S21      1  ANGIOGEN? AND ("SNS" OR "SQS")
?type s21/full/all

 21/9/1     (Item 1 from file: 5)
DIALOG(R)File   5:Biosis Previews(R)
(c. 1999 BIOSIS. All rts. reser".

12564006   BIOSIS NO.: 200000111508
```

Generation of expression plasmids for angiostatin, endostatin and TIMP-2 for cancer gene therapy.

AUTHOR: Indraccolo S(a); Minuzzo S; Gola E; Habeler W; Carrozzino F; Noonan D; Albini A; Santi L; Amadori A; Chieco-Bianchi L
AUTHOR ADDRESS: (a)Dipartimento di Oncologia e Scienze Chirurgiche, Universita di Padova, Via Gattamelata, 64, 35128, Padova**Italy

JOURNAL: International Journal of Biological Markers 14 (4):p251-256 Oct.-Dec., 1999
ISSN: 0393-6155
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: Antiangiogenic therapy may represent a promising approach to cancer treatment. Indeed, the efficacy of endogenous **angiogenesis** inhibitors, including angiostatin, endostatin and TIMPs, has been demonstrated in many types of solid tumors in animal models. In view of the possible problems associated with long-term administration of inhibitors as recombinant proteins, we propose their delivery as nucleic acids through a gene therapy approach. To this end, eukaryotic expression constructs for murine angiostatin and endostatin as well as human TIMP-2 were generated, and characterized in vitro. All constructs carry the relevant cDNAs under the control of the strong HCMV promoter/enhancer, and cleavable leader signals to allow protein secretion. Expression of the **angiogenesis** inhibitors was detected by in vitro transcription/translation experiments as well as transfection of 293T cells, followed by Western blotting (WB) or radioimmunoprecipitation analysis of both cell lysates and supernatants (**SNs**). These constructs might be used for in vivo intramuscular delivery of plasmid DNA and as a set of reagents for the development of retroviral as well as adeno-associated viral (AAV) vectors expressing **angiogenesis** inhibitors.

DESCRIPTORS:
- MAJOR CONCEPTS: Cardiovascular Medicine (Human Medicine, Medical Sciences); Oncology (Human Medicine, Medical Sciences); Pharmacology
- BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Parvoviridae--Animal Viruses, Viruses, Microorganisms; Retroviridae--Animal Viruses, Viruses, Microorganisms
- ORGANISMS: adeno-associated virus (Parvoviridae)--gene vector; human (Hominidae); retrovirus (Retroviridae)--gene vector
- BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animal Viruses; Animals;

Chordates; Humans; Mammals; Microorganisms; Primates; Retroviridae; Viruses
CHEMICALS & BIOCHEMICALS: TIMP-2; angiostatin; endostatin; expression plasmids
METHODS & EQUIPMENT: Cancer gene therapy--gene therapy methods
MISCELLANEOUS TERMS: tumor **angiogenesis**
CONCEPT CODES:
24013 Neoplasms and Neoplastic Agents-Therapeutic Agents; Therapy
38513 Genetics and Cytogenetics-Human
10564 Biochemical Studies-Proteins, Peptides and Amino Acids
12013 Pathology, General and Miscellaneous-Therapy (1991-)
[illegible] Genetics of Bacteria and Viruses
[illegible] Cardiovascular System-Blood Vessel Pathology
[illegible] Pharmacology-Basic Cellular Systems
BIOSYSTEMATIC CODES:
20113 Parvoviridae (1993-
20823 Retroviridae (1993-)
86215 Hominidae

21/9/2 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

10593535 20134851 PMID: 10568855
Generation of expression plasmids for angiostatin, endostatin and TIMP-2 for cancer gene therapy.
Indraccolo S; Minuzzo S; Gola E; Habeler W; Carrozzino F; Noonan D; Albini A; Santi L; Amadori A; Chieco-Bianchi L
IST-Biotechnology Section, Padova, Italy. indra@uxl.unipd.it
International journal of biological markers (ITALY) Oct-Dec 1999, 14 (4) p251-, ISSN 0393-6155 Journal Code: 8712411
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS
Antiangiogenic therapy may represent a promising approach to cancer treatment. Indeed, the efficacy of endogenous **angiogenesis** inhibitors, including angiostatin, endostatin and TIMPs, has been demonstrated in many types of solid tumors in animal models. In view of the possible problems associated with long-term administration of inhibitors as recombinant proteins, we propose their delivery as nucleic acids through a gene therapy approach. To this end, eukaryotic expression constructs for murine angiostatin and endostatin as well as human TIMP-2 were generated, and characterized in vitro. All constructs carry the relevant cDNAs under the control of the strong HCMV promoter/enhancer, and cleavable leader signals to allow protein secretion. Expression of the **angiogenesis** inhibitors was detected by in vitro transcription/translation experiments as well as transfection of 293T cells, followed by Western blotting (WB) or radioimmunoprecipitation analysis of both cell lysates and supernatants (**SNs**). These constructs might be used for in vivo intramuscular delivery of plasmid DNA and as a set of reagents for the development of retroviral as well as adeno-associated viral (AAV) vectors expressing **angiogenesis** inhibitors.
Tags: Human; Support, Non-U.S. Gov't
Descriptors: **Angiogenesis** Inhibitors--genetics--BI; *Collagen--metabolism--GE; *Gene Therapy; *Neoplasms--therapy--TH; *Peptide Fragments--genetics--GE; *Plasmids; *Plasminogen--genetics--GE; *Tissue Inhibitor of Metalloproteinase-2--genetics--GE; Transfection
CAS Registry No.: [illegible] (Angiogenesis Inhibitors); 0 (Peptide Fragments); 0 (Plasmids); [illegible] (endostatin); 127497-59-0 (Tissue Inhibitor of Metalloproteinase-2); 86090-08-6 (angiostatin); 9001-91-6 (Plasminogen); 9007-34-5 (Collagen)
Record Date Created: 20000224
?s angiogen? and rag and vector or dna or rna
368 ANGIOGEN?
100 RAG
149113 VECTOR

```
          1304 ***  DNA
               ***  RNA
      S22        0  ANGIOGEN? AND RGD AND (VECTOR OR DNA OR RNA)
?ds

Set       Items   Description
S1           29   AU='SHUEY S' OR AU='SHUEY S A' OR AU='SHUEY S P' OR AU='SH-
                  UEY STEVE' OR AU='SHUEY STEVEN W'
S2          196   AU='MOUSA SHAHER' OR AU='MOUSA SHAHER A' OR AU='MOUSA SHAH-
                  ER AHMED'
S3      5639501   1 OR S2
S4          225   S1 OR S2
S5            0   S4 AND ANGIOGEN$
S6           40   S4 AND ANGIOGEN?
S7            3   OSLER AND WEBBER AND RENDU
S8            0   "OSLER-WEBBER-RENDU"
S9          165   HAEMORRHAGIC TELANGIECTASIA
S10           2   S9 AND ANGIOGEN?
S11       57211   OSMOTIC
S12           1   S4 AND S11
S13        2419   12 AND ANGIOGEN?
S14           0   S13 AND ANGIOGEN?
S15        3144   RGD
S16          14   S15 AND ANGIOGEN?
S17          44   S16 AND PY>2000
S18           0   S17 AND (SER OR THR OR CYS) AND (ASN OR GLN)
S19           0   ANGIOGEN? AND ("SER ASN SER" OR "SER GLN SER")
S20           1   ANGIOGEN? AND ("SER-ASN-SER" OR "SER-GLN-SER")
S21           1   ANGIOGEN? AND ("SNS" OR "SQS")
S22           1   ANGIOGEN? AND RGD AND (VECTOR OR DNA OR RNA)
?s s15 and vector
            1196  S15
          144113  VECTOR
      S23     178  S15 AND VECTOR
?s s15 and (dna or rna)
            6198  S15
         1336007  DNA
          707277  RNA
      S24     701  S15 AND (DNA OR RNA)
?s s23 and s24
             178  S23
             701  S24
      S25     54   S23 AND S24
?s s25 and (tissue or tissues)
              54  S25
          120715  TISSUE
          436430  TISSUES
      S26      7  S25 AND (TISSUE OR TISSUES)
?typw s26/free/all
>>>'YPW' not recognized as set or accession number
?type s26/free/all

 26/8/1     (Item 1 from file: 5)
13329828   BIOSIS NO.: 200100536977
Potential tumor-targeting peptide vector of histidylated oligolysine
  conjugated to a tumor-homing RGD motif.
2001


 26/8/2     (Item 2 from file: 5)
12249714   BIOSIS NO.: 200000093216
Structural characterization of mouse CD97 and study of its specific
  interaction with the murine decay-accelerating factor (DAF, CD55).
1999


 26/8/3     (Item 3 from file: 5)
11192527   BIOSIS NO.: 199799813672
```

Increased in vitro and in vivo gene transfer by adenovirus vectors containing chimeric fiber proteins.
1997

26/8/4 (Item 4 from file: 5)
09765794 BIOSIS NO.: 199598[illegible]
A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.
1995

26/8/5 (Item 5 from file: 5)
09663791 BIOSIS NO.: 199598118709
Recombinant Domain III of Perlecan Promotes Cell Attachment through Its RGDS Sequence.
1995

26/8/6 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12708873 21543326 PMID: 11687901
Potential tumor-targeting peptide vector of histidylated oligolysine conjugated to a tumor-homing RGD motif.
Dec 2001
Tags: Animal; Human; Male; Support, Non-U.S. Gov't
Descriptors: *Gene Therapy--methods--MT; *Genetic Vectors; *Histidine; *Liver Neoplasms, Experimental--therapy--TH; *Oligopeptides--genetics--GE; *Pancreatic Neoplasms--therapy--TH; *Polylysine--genetics--GE; Antibiotics, Macrolide--pharmacology--PD; Enzyme Inhibitors--pharmacology--PD; Liver Neoplasms, Experimental--metabolism--ME; Liver Neoplasms, Experimental--pathology--PA; Luciferase--metabolism--ME; Mice; Mice, Inbred BALB C; Mice, Nude; Oligopeptides--pharmacokinetics--PK; Pancreatic Neoplasms--metabolism--ME; Pancreatic Neoplasms--pathology--PA; Plasmids; Polylysine--pharmacokinetics--PK; Proton-Translocating ATPases--antagonists and inhibitors--AI; **Tissue** Distribution; Tumor Cells, Cultured
CAS Registry No.: 0 (Antibiotics, Macrolide); 0 (Enzyme Inhibitors); 0 (Genetic Vectors); 0 (Oligopeptides); 0 (Plasmids); 25104-19-1 (Polylysine); 71-00-1 (Histidine); 88899-55-2 (bafilomycin A1); 99896-85-2 (arginyl-glycyl-aspartic acid)
Enzyme No.: EC 1.13.12.- (Luciferase); EC 3.6.3.14 (Proton-Translocating ATPases)

26/8/7 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08421136 95172398 PMID: 7961945
A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.
Feb 17 1995
Tags: Support, Non-U.S. Gov't
Descriptors: Cell Adhesion Molecules--genetics--GE; * **DNA** , Complementary --genetics--GE; * **DNA** , Fungal--genetics--GE; *Genes, Structural, Fungal; *Oligopeptides; *Polyporaceae--genetics--GE; Amino Acid Sequence; Base Sequence; Binding, Competitive; Cell Adhesion; Cell Adhesion Molecules --chemistry--CH; Cell Adhesion Molecules--metabolism--ME; Cloning, Molecular; Escherichia coli; Molecular Sequence Data; **RNA** , Fungal --biosynthesis--BI; **RNA** , Messenger--biosynthesis--BI; Recombinant Fusion Proteins--biosynthesis--BI
Molecular Sequence Databank No.: GENBANK/S75825; GENBANK/S75826
CAS Registry No.: 0 (Cell Adhesion Molecules); 0 (DNA, Complementary); 0 (DNA, Fungal); 0 (MfbAC protein); 0 (Oligopeptides); 0 (RNA, Fungal); 0 (RNA, Messenger); 0 (Recombinant Fusion Proteins); 99896-85-2 (arginyl-glycyl-aspartic acid)

Gene Symbol: mfbAc
?type s26 full all

26/9/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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13323428 BIOSIS NO.: 200113054847
Potential tumor-targeting peptide vector of histidylated oligolysine conjugated to a tumor-homing RGD motif.
AUTHOR: Aoki Yoji(a); Nishika Shigetoshi; Kawa Shigeyuki; Kiyosawa Kenji
AUTHOR ADDRESS: (a)The Second Department of Internal Medicine, Shinshu University School of Medicine, 3-1-1 Asahi, Matsumoto, 390-8621: yaoki55@hsp.md.shinshu-u.ac.jp**Japan
JOURNAL: Human Gene Therapy v 12(16):pp 1951- 61 October, 2001
MEDIUM: print
ISSN: 0921-1905
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: We have developed a potential tumor-targeting peptide **vector** (cRGD-hK) that is intended to be systemically and repeatedly administered to patients with advanced solid tumors. The peptide **vector** of 36 L-amino acid residues, CRGDCF(K-H-HKK)6, comprises a tumor-homing **RGD** motif, a **DNA**-binding oligolysine, and histidyl residues to facilitate the delivery into the cytosol. Using cytomegalovirus-driven luciferase-expressing plasmids as a reporter, we tested the transfection efficiency of cRGD-hK in hepatoma and pancreatic cancer cell lines. Transfection with the cRGD-hK/plasmid complexes (molar ratio 4000:1) was inhibited by 10 nM bafilomycin A1, an inhibitor of the vacuolar ATPase endosomal proton pump, or 10 mM cyclo(RGDfV), an integrin alphavbeta3 antagonist, indicating that the three elements of cRGD-hK could function as expected, at least in vitro. In nude mice bearing tumors created by subcutaneous inoculation, luciferase activity in the tumor **tissues** 48 hours after the injection of the cRGD-hK/plasmid complexes through the tail vein (1 mg plasmid per mouse) was significantly higher than that in the lung, kidney, and spleen, but only slightly higher than that in the liver. Although the latter difference was small, we propose a potential nonviral gene therapy for advanced solid tumors through use of the tumor-targeting peptide **vector**.

REGISTRY NUMBERS: 88899-55-2: BAFILOMYCIN A-1; 9014-00-0Q: LUCIFERASE; 61868-41-8Q: LUCIFERASE; 61960-99-1Q: LUCIFERASE; 61970-00-1Q: LUCIFERASE; 63013-54-1Q: LUCIFERASE; 76116-81-5Q: LUCIFERASE
DESCRIPTORS:
MAJOR CONCEPTS: Methods and Techniques; Molecular Genetics (Biochemistry and Molecular Biophysics); Tumor Biology
BIOSYSTEMATIC NAMES: Herpesviridae--Animal Viruses, Viruses, Microorganisms; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISM: Hep3B cell line (Hominidae)--human hepatoma cells; Hs700T cell line (Hominidae)--human pancreatic cancer cells; MIAPaCa-2 cell line (Hominidae)--human pancreatic cancer cells; PLC cell line (PRF cell line) (Hominidae)--human hepatoma cells; cytomegalovirus (Herpesviridae --expression system; mouse (Muridae)--animal model, male, nude, strain-BALB/c
ORGANISM: PARTS ETC: cytosol
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animal Viruses; Animals; Chordates; Humans; Mammals; Microorganisms; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates; Viruses
CHEMICALS & BIOCHEMICALS: **DNA**-binding oligolysine; **RGD** motif; bafilomycin A-1--vacuolar ATPase endosomal proton pump inhibitor; histidyl residues; luciferase--expression; luciferase expression plasmids--reporter; tumor-targeting peptide **vector**
METHODS & EQUIPMENT: nonviral gene therapy--genetic method, therapeutic method

MISCELLANEOUS TERMS: [illegible]
CONCEPT CODES:
02506 Cytology and Cytochemistry-Animal
02508 Cytology and Cytochemistry-Human
03502 Genetics and Cytogenetics-General
03506 Genetics and Cytogenetics-Animal
03508 Genetics and Cytogenetics-Human
10502 Enzymes-General and Comparative Studies; Coenzymes
14504 Neoplasms and Neoplastic Agents-Pathology; Clinical Aspects; Systemic Effects
31500 Genetics of Bacteria and Viruses
33506 Virology-Animal Host Viruses
BIOSYSTEMATIC CODES:
22512 Herpesviridae (1993-
65510 Hominidae
65705 Muridae

26/9/2 (Item 2 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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12347714 BIOSIS NO.: 200000003216
Structural characterization of mouse CD97 and study of its specific interaction with the murine decay-accelerating factor (DAF, CD55).
AUTHOR: Qian Y-M; Haino M; Kelly K; Song W-C(a)
AUTHOR ADDRESS: (a) Center for Experimental Therapeutics, University of Pennsylvania School of Medicine, 421 Curie Boulevard, 1351 BRBII/III, Philadelphia, PA, 19104-6160, USA
JOURNAL: Immunology 98 2 :p305-311 Oct., 1999
ISSN: 0019-2805
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: CD97 is a newly identified, activation-associated human leucocyte antigen with seven putative transmembrane domains. It has an extended extracellular segment containing several adhesion molecule structure motifs, and has been shown to interact with the human complement regulator, decay-accelerating factor (DAF, CD55). To understand further the interaction between CD97 and DAF, as well as the structure and function of CD97 in general, we have cloned the mouse CD97 cDNA and studied the encoded protein for its membrane association property and ability to interact specifically with the murine decay-accelerating factor. The full-length mouse CD97 cDNA that we have cloned and characterized encodes a protein that is 69% identical to the three epidermal growth factor (EGF) domain-containing form of human CD97 but does not contain the Arg-Gly-Asp (**RGD**) motif which is present in human CD97. Two other alternatively spliced forms of mouse CD97 were also identified. These forms differ by the number of EGF-like sequence repeats present in the N-terminal region. Northern blot analysis revealed that CD97 is expressed widely in mouse **tissues** and in resting as well as activated cultured mouse splenocytes. Transient transfection of human embryonic kidney (HEK) 293 cells with the mouse CD97 cDNA in a green-fluorescence protein **vector** (pEGFP-N1) showed plasma membrane targeting of the expressed protein. Western blot analysis confirmed its membrane association and identified the existence of a processed N-terminal fragment, supporting the notion that CD97 on the cell membrane is composed of post-translationally generated subunits. Adhesion studies demonstrated that normal, but not DAF-deficient mouse erythrocytes and splenocytes adhered to mouse CD97-transfected HEK cells. The interaction of CD97 and DAF was found to be species-restrictive in that human erythrocytes were unable to bind to mouse CD97-transfected HEK cells. These results indicate that the general structure, membrane association property and DAF-binding ability of CD97 are conserved and that the adhesive interaction between CD97 and DAF is independent of the **RGD** motif. The finding that CD97 is distributed widely among various mouse

tissues suggests that CD97 may have other roles beyond lymphocyte activation.

REGISTRY NUMBER: [illegible]; [illegible]; [illegible]
INDEXING:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Immune System (Chemical Coordination and Homeostasis)
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: 293 cell line (Hominidae)--human embryonic kidney cells; mouse (Muridae)
ORGANISMS: PARTS ETC: erythrocytes--blood and lymphatics; [illegible]
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Humans; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates
CHEMICALS & BIOCHEMICALS: CD97--HLA, human, mouse, structural characterization; arginyl-glycyl-aspartic acid motif; cDNA (complementary **DNA**); decay-accelerating factor (CD55, DAF)--murine; epidermal growth factor
MISCELLANEOUS TERMS: amino acid sequence; nucleotide sequence
CONCEPT CODES:
[illegible] Immunology and Immunochemistry-General; Methods
[illegible] Cytology and Cytochemistry-Human
[illegible] Biochemical Studies-General
[illegible] Metabolism-General Metabolism; Metabolic Pathways
[illegible] Blood, Blood-Forming Organs and Body Fluids-General; Methods
BIOSYSTEMATIC CODES:
[illegible] Hominidae
[illegible] Muridae

26/9/3 (Item 3 from file: 5)
DIALOG File 5:Biosis Previews R
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11[illegible]7 BIOSIS NO.: 199799813612
Increased in vitro and in vivo gene transfer by adenovirus vectors containing chimeric fiber proteins.
AUTHOR: Wickham Thomas J(a); Tzeng Edith; Shears Larry L II; Roelvink Peter W; Li Yuan; Lee Gal M; Brough Douglas E; Lizonova Alena; Kovesdi Imre
AUTHOR ADDRESS: (a)GenVec Inc., 12111 Parklawn Dr., Rockville, MD 20852**USA
JOURNAL: Journal of Virology 71 11):p8221-8229 1997
ISSN: 0022-538X
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Alteration of the natural tropism of adenovirus (Ad) will permit gene transfer into specific cell types and thereby greatly broaden the range of target diseases that can be treated by using Ad. We have constructed two Ad vectors which contain modifications to the Ad fiber coat protein that redirect virus binding to either alpha-v integrin (Ad[illegible].F(**RGD**)) or heparan sulfate (AdZ.F(pK7)) cellular receptors. These vectors were constructed by a novel method involving E4 rescue of an E1-deficient Ad with a transfer **vector** containing both the E4 region and the modified fiber gene. Ad[illegible].F(**RGD**) increased gene delivery to endothelial and smooth muscle cells expressing alpha-v integrins. Likewise, Ad[illegible].F(pK7) increased transduction 5- to 500-fold in multiple cell types lacking high levels of Ad fiber receptor, including macrophage, endothelial, smooth muscle, fibroblast, and T cells. In addition, Ad[illegible].F(pK7) significantly increased gene transfer in vivo to vascular smooth muscle cells of the porcine iliac artery following balloon angioplasty. These vectors may therefore be useful in gene therapy for vascular restenosis or for targeting endothelial cells in tumors. Although binding to the fiber receptor still occurs with these vectors, they demonstrate the feasibility of **tissue**-specific [illegible]

targeting in cells which express low levels of Ad fiber receptor.

REGISTRY NUMBERS: 9050-30-0: HEPARAN SULFATE
DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Blood and Lymphatics (Transport and Circulation); Cell Vascular System (Transport and Circulation); Cell Biology; Genetics; Infection; Methods and Techniques; Microbiology; Muscular System (Movement and Support)
BIOSYSTEMATIC NAMES: Adenoviridae--Viruses; Suidae--Artiodactyla, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: adenovirus (Adenoviridae); pig (Suidae)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; artiodactyls; chordates; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; vertebrates; viruses
CHEMICALS & BIOCHEMICALS: HEPARAN SULFATE
MISCELLANEOUS TERMS: Research Article; ALPHA-INTEGRIN; BALLOON ANGIOPLASTY; BLOOD AND LYMPHATICS; CHIMERIC FIBER PROTEINS; CIRCULATORY SYSTEM; **DNA** TRANSFER METHOD; ENDOTHELIAL CELL; FIBROBLAST; GENE THERAPY DEVELOPMENT; GENE **VECTOR** ; GENETIC METHOD; HEPARAN SULFATE; ILIAC ARTERY; IMMUNE SYSTEM; MACROPHAGE; METHODOLOGY; MOLECULAR GENETICS; MUSCULAR SYSTEM; SKELETAL SYSTEM; SMOOTH MUSCLE; T CELL; THERAPEUTIC METHOD; **TISSUE** -SPECIFIC RECEPTOR TARGETING; VIRAL TRANSFECTION; VIRUS CELLULAR RECEPTOR
CONCEPT CODES:
02 07 Cytology and Cytochemistry-Animal
03 06 Genetics and Cytogenetics-Animal
10 11 Biochemical Methods-Nucleic Acids, Purines and Pyrimidines
10 14 Biochemical Studies-Proteins, Peptides and Amino Acids
10 16 Biochemical Studies-Carbohydrates
14 01 Cardiovascular System-General; Methods
19 01 Blood, Blood-Forming Organs and Body Fluids-General; Methods
19 04 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies
19 05 Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and Reticuloendothelial System
17 01 Muscle-General; Methods
31 00 Genetics of Bacteria and Viruses
33 06 Virology-Animal Host Viruses
34 07 Medical and Clinical Microbiology-Virology
BIOSYSTEMATIC CODES:
02 01 Adenoviridae (1966-
02 41 Suidae

26/9/4 (Item 4 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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09768744 BIOSIS No.: 199598200712
A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.
AUTHOR: Kondoh Osamu; Muto Akihiko; Kajiwara Susumu; Takagi Junichi; Saito Yuji; Shishido Kazuo(a)
AUTHOR ADDRESS: (a)Dep. Life Sci., Tokyo Inst. Technol., Nagatsuta, Midori-ku, Yokohama 227**Japan
JOURNAL: Gene (Amsterdam) 154 (1):p31-37 1995
ISSN: 0378-1119
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: A cDNA clone (designated mfbAc , encoding 2157 amino acids (aa), was isolated from a mature fruiting-body cDNA library of the edible mushroom Lentinus edodes. The mfbA transcript was abundant in mature fruiting bodies, detectable in immature fruiting bodies but absent in earlier developmental stages and in the vegetative mycelium. Although more abundant in the pileus than the stipe, only low levels were found in the gill **tissue** . The deduced MFBA protein (234.5 kDa) contains a

Tags: Support, Non-U.S. Gov't
Descriptors: Cell Adhesion Molecules--metabolism--ME; * **DNA** , Complementary--genetics--GE; * **DNA** , Fungal--genetics--GE; *Genes, Structural, Fungal; *Oligopeptides; *Polyporaceae--genetics--GE; Amino Acid Sequence; Base Sequence; Binding, Competitive; Cell Adhesion; Cell Adhesion Molecules--chemistry--CH; Cell Adhesion Molecules--metabolism--ME; Cloning, Molecular; Escherichia coli; Molecular Sequence Data; **RNA** , Fungal--biosynthesis--BI; **RNA** , Messenger--biosynthesis--BI; Recombinant Fusion Proteins--biosynthesis--BI
Molecular Sequence Database Nos.: GENBANK/AF5624; GENBANK/AF5626
CAS Registry No.: 0 (Cell Adhesion Molecules); 1 (DNA, Complementary); 2 (DNA, Fungal); 3 (MibAC protein); 4 (Oligopeptides); 5 (RNA, Fungal); 6 (RNA, Messenger); 7 (Recombinant Fusion Proteins); 99396-85-2 (arginyl-glycyl-aspartic acid)
Gene Symbol: mfb5
Record Date Created: 1998[illegible]

?ds

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S3	5639501	1 OR S2
S4	225	S1 OR S2
S5	4	S4 AND ANGIOGEN$
S6	40	S4 AND ANGIOGEN?
S7	0	OSLER AND WEBBER AND RENDU
S8	0	"OSLER-WEBBER-RENDU"
S9	166	BARTONELLOSIS
S10	1	S9 AND ANGIOGEN?
S11	57254	OSMOTIC
S12	1	S4 AND S11
S13	2473	L2 AND ANGIOGEN?
S14	1	S13 AND ANGIOGEN?
S15	5196	PDB
S16	183	S15 AND ANGIOGEN?
S17	65	S15 AND PY>2000
S18	0	S17 AND (SER OR THR OR CYS) AND (ASN OR GLN)
S19	1	ANGIOGEN? AND ("SER ASN SER" OR "SER GLN SER")
S20	0	ANGIOGEN? AND ("SER-ASN-SER" OR "SER-GLN-SER")
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S27	0	ANGIOGEN? AND S26
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S31	7	S26 AND (DNA OR RNA OR LIPOSOME? OR POLYLYSINE?)
S32	7	S30 AND S31

?

Status: Path 1 of 1 Dialog Information Services via Modem

Status: Initializing TCP/IP using /Use/Telnet/Proto 1 Service/0 pts-dialog,
Trying 3106000000000999...Open

DIALOG INFORMATION SERVICES
PLEASE LOGON:
 ******** HHHHHHHH SSSSSSSS?
Status: Signing onto Dialog
 ****
ENTER PASSWORD:
 ******** HHHHHHHH SSSSSSSS? ********
Welcome to DIALOG
Status: Connected

Dialog level 02.09.19D

Last logoff: 09oct12 12:45:57
Logon file413 10oct12 11:24:16
*** ANNOUNCEMENT ***
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--The following files from Cambridge Scientific Abstracts (CSA)
are no longer available: 14, 28, 32, 33, 36, 37, 41, 44, 56, 61,
76, 77, 108, 117, 212, 238, 269, 293, 335. Please enter HELP CSA
plus the file number to identify alternative sources of information.
Example: HELP CSA14.
***
--File 516 D&B Dun's Electronic Business Directory is now online
completely updated and redesigned. For details, see HELP NEWS 516.
***
--File 991 - NewsRoom now contains May 2002 to present records.
File 993 - NewsRoom archive contains 2002 records from January 2002-
April 2002. To search all 2002 records, BEGIN 990,993 or B NEWS2002.
***
--Alerts have been enhanced to allow a single Alert profile to be
stored and run against multiple files. Duplicate removal is available
across files and for up to 12 months. The Alert may be run according
to the file's update frequency or according to a custom
calendar-based schedule. There are no additional prices for these
enhanced features. See HELP ALERT for more information.
***
--U.S. Patents Fulltext (File 654) has been redesigned with
new search and display features. See HELP NEWS 654 for
information.
***
--Connect Time joins DialUnits as pricing options on Dialog.
See HELP CONNECT for information.
***
--CLAIMS/US Patents (Files 340,341, 942) have been enhanced
with both application and grant publication level in a
single record. See HELP NEWS 340 for information.
***
--SourceOne patents are now delivered to your email inbox
as PDF replacing TIFF delivery. See HELP SOURCE1 for more
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libraries. See HELP LIBRARY for more information.
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See HELP FREELANCE for more information
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For information about the access to file 15 please see Help News43.
***
NEW FILES RELEASED
***Dialog NewsRoom - Current 3-4 months (File 990)

***Dialog NewsRoom - 2002 Archive (File 993)
***Dialog NewsRoom - 2001 Archive (File 994)
***Dialog NewsRoom - 2000 Archive (File 995)
***TRADEMARKSCAN-Finland (File 679)
***TRADEMARKSCAN-Norway (File 678)
***TRADEMARKSCAN-Sweden (File 675)
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UPDATING RESUMED
***Delphes European Business (File 481)
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RELOADED
***D&B Dun's Electronic Business Directory (File 515)
***U.S. Patents Fulltext 1976-current (File 654)
***Population Demographics (File 581)
***Kompass Western Europe (File 590)
***D&B - Dun's Market Identifiers (File 516)

REMOVED
***Chicago Tribune (File 632)
***Fort Lauderdale Sun Sentinel (File 497)
***The Orlando Sentinel (File 705)
***Newport News Daily Press (File 747)
***U.S. Patents Fulltext 1980-1989 (File 653)
***Washington Post (File 146)
***Books in Print (File 470)
***Court Filings (File 783)
***Publishers, Distributors & Wholesalers of the U.S. (File 450)
***State Tax Today (File 791)
***Tax Notes Today (File 790)
***Worldwide Tax Daily (File 792)
***ISMEC: Mechanical Engineering Abstracts (File 14)
***Ceramic Abstracts (File 24)
***METADEX: Metals Science (File 32)
***Aluminium Industry Abstracts (File 33)
***Linguistics and Language Behavior Abstracts (File 36)
***Biological Abstracts (File 37)
***Pollution Abstracts (File 41)
***Aquatic Sciences and Fisheries Abstracts (File 44)
***ABI/Bibliographies Modern (File 16)
***LISA (Library & Information Science Abstracts) (File 61)
***Life Sciences Collection (File 76)
***Conference Papers Index (File 77)
***Aerospace Database (File 108)
***Water Resources Abstracts (File 117)
***Applied Social Sciences Index and Abstracts (File 232)
***Abstracts in New Technologies and Engineering (File 238)
***Materials Business File (File 269)
***Engineered Materials Abstracts (File 293)
***Ceramic Abstracts (File 335)

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      >>>   of new databases, price changes, etc.   <<<
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SYSTEM:HOME
Cost is in DialUnits
Menu System II: D2 version 1.7.3 term=ASCII
                      *** DIALOG HOMEBASE(SM) Main Menu ***

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  1. Announcements (new files, reloads, etc.)
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  5. [illegible]

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  6.  DIALOG(R) Document Delivery
  7.  Data Star(R)

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 service.  Enter a BEGIN command plus a file number to search a database
(e.g., B1 for ERIC).
?b 5, 155, 172

       10oct02 11:26:44 User263147 Session D15.1
            $0.00    0.183 DialUnits FileHomeBase
      $0.00  Estimated cost FileHomeBase
      $0.03  TELNET
      $0.03  Estimated cost this search
      $0.03  Estimated total session cost   0.183 DialUnits


SYSTEM:OS  - DIALOG OneSearch
  File   5:Biosis Previews(R)   1969-2002/Oct W1
         (c) 2002 BIOSIS
*File   5: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.
  File 155:MEDLINE(R)  1966-2002/Sep W5
*File 155: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.
  File 172:EMBASE Alert  2002/Oct W1
         (c) 2002 Elsevier Science B.V.

      Set  Items  Description
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?e au=shuey s

Ref   Items  Index-term
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E2        6  AU=SHUEY S A
E3        2  AU=SHUEY S R
E4        1  AU=SHUEY STEVE
E5        8  AU=SHUEY STEVEN W
E6        1  AU=SHUEY T F
E7        3  AU=SHUEY W
E8       34  AU=SHUEY W D
E9        1  AU=SHUFAN CH
E10       2  AU=SHUFANG L
E11       1  AU=SHUFARD Y
E12       1  AU=SHUFARD Y.

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                1  AU=SHUEY STEVE
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E8        10  AU=MOUSA W
E9         3  AU=MOUSA W A
E10        8  AU=MOUSA W F
E11        3  AU=MOUSA W M
E12        3  AU=MOUSA WEAM F

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               178  AU=MOUSA SHAKER A
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               196  S2
       S4      215  S1 OR S2
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 6/8/1      (Item 1 from file: 5)
13871333    BIOSIS NO.: 200200500154
Anti-integrin as novel drug-discovery targets: Potential therapeutic and
  diagnostic implications.
2002


 6/8/2      (Item 2 from file: 5)
13643981    BIOSIS NO.: 200200272803
Antiangiogenic and antimetastatic properties of Neovastat (AE-941), an
  orally active extract derived from cartilage tissue.
2002


 6/8/3      (Item 3 from file: 5)
13549328    BIOSIS NO.: 200200178149
Junctional adhesion molecule 1, JAM-1, regulates bFGF-induced  angiogenesis
  .
2001


 6/8/4      (Item 4 from file: 5)
13336581    BIOSIS NO.: 200200165402
Obtustatin, potent inhibitor of  angiogenesis  by interaction with
  alphalbeta1 integrin.
2001


 6/8/5      (Item 5 from file: 5)
13523306    BIOSIS NO.: 200200152127
Anti- angiogenesis  mechanisms and efficacy of the low molecular weight
  heparin, tinzaparin: Anti-cancer efficacy beyond its anticoagulants
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effects.
2001

6/8/6 (Item 6 from file: 5)
13522727 BIOSIS NO.: 200200151548
Efficacy of heparin molecular weight fractions and low molecular weight heparins on the release of Tissue Factor Pathway Inhibitor from human endothelial cells: Structure-function relationship.
2001

6/8/7 (Item 7 from file: 5)
13303579 BIOSIS NO.: 200100510728
Inhibition of angiogenesis by peptide analogs of high molecular weight kininogen domain 5.
2001

6/8/8 (Item 8 from file: 5)
13092833 BIOSIS NO.: 200100299982
Anti- angiogenic efficacy & mechanism of the low molecular weight heparin (LMWH), Tinzaparin and tissue factor pathway inhibitor (TFPI): Potential anti-cancer link and benefits.
2000

6/8/9 (Item 9 from file: 5)
13089656 BIOSIS NO.: 200100296805
Anti- angiogenesis and anti-tumor efficacy of warfarin in the chick chorioallantoic membrane (CAM) model.
2000

6/8/10 (Item 10 from file: 5)
13046588 BIOSIS NO.: 200100253737
Anti- angiogenesis and anti-tumor efficacy of warfarin.
2001

6/8/11 (Item 11 from file: 5)
13037206 BIOSIS NO.: 200100244355
In vitro angiogenic activity of endothelial cells induced by neutrophils.
2001

6/8/12 (Item 12 from file: 5)
13037200 BIOSIS NO.: 200100244349
Common pathways involved in alpha-chemokine and cytokine mediated angiogenesis .
2001

6/8/13 (Item 13 from file: 5)
12862075 BIOSIS NO.: 200100069224
Estrogen receptor-alpha in the inhibition of cancer growth and angiogenesis .
2000

6/8/14 (Item 14 from file: 5)
12819456 BIOSIS NO.: 200100036607
Antiangiogenesis efficacy of nitric oxide donors.
2000

6/8/15 (Item 15 from file: 5)
12694146 BIOSIS NO.: 200000447648

Anti- angiogenic efficacy of the low molecular weight heparin (LMWH), Tinzaparin and tissue factor pathway inhibitor (TFPI).
2000

6/8/16 (Item 16 from file: 5)
12687096 BIOSIS NO.: 200000440598
Angiogenic activity of a platelet specific C-X-C chemokine, neutrophil activating protein-2.
2000

6/8/17 (Item 17 from file: 5)
12645894 BIOSIS NO.: 200000436606
SM256, a novel non-peptide and potent integrin antagonist for vascular cell integrin alphavbeta3 potently inhibit angiogenesis -mediated disorders.
2000

6/8/18 (Item 18 from file: 5)
12616539 BIOSIS NO.: 200000370041
Hypoxia induces differential expression of the integrin receptors alphavbeta3 and alphavbeta5 in cultured human endothelial cells.
2000

6/8/19 (Item 19 from file: 5)
12590674 BIOSIS NO.: 200000343876
Regulation of angiogenesis in vivo by ligation of integrin alpha5beta1 with the central cell-binding domain of fibronectin.
2000

6/8/20 (Item 20 from file: 5)
12463114 BIOSIS NO.: 200000176616
SQ885, a novel non-peptide integrin antagonist for vascular cell integrins alphavbeta3, alphavbeta5, and alpha5beta1 potently inhibit angiogenesis -mediated disorders.
2000

6/8/21 (Item 21 from file: 5)
12463102 BIOSIS NO.: 200000176604
Inhibition of angiogenesis by peptides derived from kininogen domain 5 & by a monoclonal antibody to kininogen domain 5.
2000

6/8/22 (Item 22 from file: 5)
12350832 BIOSIS NO.: 200000104334
Domain 5 of high molecular weight kininogen (kininostatin) down-regulates endothelial cell proliferation and migration and inhibits angiogenesis .
2000

6/8/23 (Item 23 from file: 5)
12298862 BIOSIS NO.: 200000046729
Inhibition of tumor angiogenesis by a monoclonal antibody to kininogen domain 5.
1999

6/8/24 (Item 24 from file: 5)
12297408 BIOSIS NO.: 200000045275
Anti- angiogenesis efficacy of small molecule alpha5beta1 integrin antagonist, SJ749.
1999

6/8/25 (Item 25 from file: 5)
12287186 BIOSIS NO.: 200000045052
Anti- angiogenic efficacy of the low molecular weight heparin (LMWH), Tinzaparin and tissue factor pathway inhibitor (TFPI).
1999

6/8/26 (Item 26 from file: 5)
12284682 BIOSIS NO.: 200000042549
Key role of alphaVbeta3 integrin in hypoxia and cytokine-induced upregulation of vascular endothelial growth factor (VEGF) and other angiogenesis processes: Implications in angiogenesis -mediated disorders.
1999

6/8/27 (Item 27 from file: 5)
11529918 BIOSIS NO.: 199900524762
Antagonists of vascular cell integrin alpha 5beta 1 inhibit angiogenesis .
1998

6/8/28 (Item 28 from file: 5)
10038394 BIOSIS NO.: 199900318913
Novel small molecule alphav integrin antagonists: Comparative anti-cancer efficacy with known angiogenesis inhibitors.
1998

6/8/29 (Item 29 from file: 5)
10007469 BIOSIS NO.: 199900307988
Role of hypoxia and extracellular matrix-integrin binding in the modulation of angiogenic growth factors secretion by retinal pigmented epithelial cells.
1998

6/8/30 (Item 30 from file: 5)
10002483 BIOSIS NO.: 199900283002
Anti- angiogenesis efficacy of high affinity receptor subtype specific somatostatin analogues.
1999

6/8/31 (Item 31 from file: 5)
10002482 BIOSIS NO.: 199900283001
Anti- angiogenesis efficacy of nitric oxide donor.
1998

6/8/32 (Item 32 from file: 5)
10002481 BIOSIS NO.: 199900283000
Anti- angiogenesis efficacy of cyclooxygenase inhibitors.
1998

6/8/33 (Item 33 from file: 5)
11424486 BIOSIS NO.: 199900170595
Antagonist of vascular cell integrin avb3 and avb5 inhibit angiogenesis .
1999

6/8/34 (Item 34 from file: 5)
11425659 BIOSIS NO.: 199900206991
Mechanisms of angiogenesis in vascular disorders: Potential therapeutic

targets.
1998

6/8/35 (Item 35 from file: 5)
10635489 BIOSIS NO.: 199699256634
Antagonists of integrin alpha-V-BETA-3 inhibit retinal neovascularization in a murine model.
1996

6/8/36 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13661746 21882284 PMID: 11885025
Anticoagulants in thrombosis and cancer: the missing link.
Feb 2002
Tags: Animal; Human
Descriptors: *Anticoagulants--therapeutic use--TU; *Neoplasms --drug therapy--DT; *Thrombosis--drug therapy--DT; Neoplasm Metastasis --drug therapy--DT; Neoplasm Metastasis--prevention and control--PC; Neoplasms --blood--BL; Neoplasms--complications--CO; Neovascularization, Pathologic --drug therapy--DT; Neovascularization, Pathologic--prevention and control --PC; Thrombosis--etiology--ET
CAS Registry No.: 0 (Anticoagulants)

6/8/37 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13336[illegible] 21196[illegible] PMID: 12211413
Vitronectin receptors in vascular disorders.
Aug 2002

6/8/38 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13436791 21108644 PMID: 12113244
Anticoagulants in thrombosis and cancer: the missing link.
Apr 2002
Tags: Animal; Human
Descriptors: *Anticoagulants--therapeutic use--TU; *Neoplasms --drug therapy--DT; *Thrombosis--drug therapy--DT; Neoplasms--complications--CO; Neovascularization, Pathologic--drug therapy--DT; Neovascularization, Pathologic--etiology--ET; Recurrence; Thrombosis--etiology--ET
CAS Registry No.: 0 (Anticoagulants)

6/8/39 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13388[illegible] 21238643 PMID: 12133730
Anti-integrin as novel drug-discovery targets: potential therapeutic and diagnostic implications.
Aug 2002

6/8/40 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

1316-2[illegible] 21960028 PMID: 11964078
Antiangiogenic and antimetastatic properties of Neovastat (AE-941), an orally active extract derived from cartilage tissue.
2002
Tags: Animal; Female; Human
Descriptors: **Angiogenesis** Inhibitors--pharmacology--PD; *Antineoplastic Agents--pharmacology--PD; *Blood Vessels--drug effects--DE; *Neovasculariza

--pharmacology--PA; Administration, ...; **Angiogenesis** Inhibitors --isolation and purification--IP; Antineoplastic Agents --isolation and purification--IP; Antineoplastic Combined Chemotherapy Protocols --therapeutic use--TU; Body Weight--drug effects--DE; Carcinoma, Lewis Lung --blood supply--BS; Carcinoma, Lewis lung--drug therapy--DT; Carcinoma, Lewis Lung--pathology--PA; Cartilage--chemistry--CH; Chick Embryo; Cisplatin--administration and dosage--AD; Collagen; Dose-Response Relationship, Drug; Drug Combinations; Fibroblast Growth Factor 2--toxicity --TO; Laminin; Mice; Mice, Inbred BALB C; Proteoglycans; Tissue Extracts --isolation and purification--IP

CAS Registry No.: 0 (Angiogenesis Inhibitors); 0 (Antineoplastic Agents); 0 (Antineoplastic Combined Chemotherapy Protocols); 0 (Drug Combinations); 0 (Laminin); 0 (Proteoglycans); 0 (Tissue Extracts); 0 (shark cartilage extract AE 941); 103107-01-3 (Fibroblast Growth Factor 2); 119978-18-6 (matrigel); 15663-27-1 (Cisplatin); 9007-34-5 (Collagen)

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Is osler and webber and rendu
             1913  OSLER
              141  WEBBER
             1217  RENDU
       37       4  OSLER AND WEBBER AND RENDU
Is "osler-webber-rendu"
       38       4  "OSLER-WEBBER-RENDU"
Is bartonellosis
       39     166  BARTONELLOSIS
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S1         39   AU='SHUEY S' OR AU='SHUEY S A' OR AU='SHUEY S R' OR AU='SH-
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S2        196   AU='MOUSA SHAKER' OR AU='MOUSA SHAKER A' OR AU='MOUSA SHAK-
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S3    9633301   1 OR S2
S4        235   S1 OR S2
S5          9   S4 AND ANGIOGEN$
S6         40   S4 AND ANGIOGEN?
S7          1   OSLER AND WEBBER AND RENDU
S8          0   "OSLER-WEBBER-RENDU"
S9        166   BARTONELLOSIS
Is s9 and angiogen?
              166  S9
             3687  ANGIOGEN?
      S11       2  S9 AND ANGIOGEN?
Type s11/full/all
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10/9/1 (Item 1 from file: 5)

17286560 BIOSIS NO.: 199090176447

BARTONELLA-BACILLIFORMIS STIMULATES ENDOTHELIAL CELLS IN-VITRO AND IS ANGIOGENIC IN-VIVO

AUTHOR: GARCIA F U; WOJTA J; BROADLEY K N; DAVIDSON J M; HOOVER R L
AUTHOR ADDRESS: DEP. OF PATHOL., VANDERBILT UNIV., NASHVILLE, TENN. 37232.

JOURNAL: AM J PATHOL 136 (5). 1990. 1125-1136. 1990
FULL JOURNAL NAME: American Journal of Pathology
CODEN: AJPAA
RECORD TYPE: Abstract
LANGUAGE: ENGLISH

ABSTRACT: **Bartonellosis**, a biphasic disease caused by motile intracellular bacteria, produces in its tissue phase a characteristic dermal eruption, Verruga peruana, resulting from a pronounced endothelial cell proliferation. Bacteria are found in the interstitium and within the cytoplasm of endothelial cells (Rocha-Lima inclusion). The aim of this study was to determine if Bartonella bacilliformis produce a substance(s) that might be responsible for the vascular proliferation seen in the

Verruga. This was assessed in an in vitro system using human and bovine cells and measuring proliferation as well as production of tissue type plasminogen activator after exposure of the endothelial cultures to B. bacilliformis extracts. Our results indicate that B. bacilliformis possess an activity that stimulates endothelial cell proliferation up to three times that of control. The factor(s) is specific for endothelial cells, heat sensitive, larger than 12 to 14 kd, not enhanced by heparin, has no affinity for heparin, and is precipitated by 45% ammononium sulfate. In addition, the B. bacilliformis extracts stimulate production of F-BA antigen in a concentration-dependent fashion. This activity is also heat sensitive and is lost after dialysis (12 to 14 kD). B. bacilliformis extracts, however, do not increase the production of plasminogen activator inhibitor. It was also determined that B. bacilliformis extracts stimulate the formation of new blood vessels in an in vivo model for **angiogenesis** . These results describe a bacterial factor(s) that stimulates two important steps in the development of new blood vessels in vitro, as well as the formation of new blood vessels in vivo. Determining the mechanism of action, combined with complete characterization of this factor(s), may help in understanding the pathogenesis not only of the Verruga and **angiogenesis** in general but also the recently described Cat-Scratch-associated epithelioid hemangiomas in patients with AIDS and Kaposi sarcoma.

DESCRIPTORS: HUMAN INTRACELLULAR BACTERIA VERRUGA PERUANA DERMAL ERUPTION BLOOD VESSEL FORMATION HEAT SENSITIVITY CELL-SIZE FACTOR CAT-SCRATCH HEMANGIOMA KAPOSI SARCOMA
CONCEPT CODES:
  [illegible] Cytology and Cytochemistry-Human
  [illegible] Pathology, General and Miscellaneous-Inflammation and Inflammatory Disease
  [illegible] Cardiovascular System-Physiology and Biochemistry
  [illegible] Cardiovascular System-Blood Vessel Pathology
  [illegible] Integumentary System-Anatomy
  [illegible] Integumentary System-Pathology
  [illegible] Developmental Biology-Embryology-Morphogenesis, General
  [illegible] Medical and Clinical Microbiology-Bacteriology
  [illegible] Biochemical Studies-Proteins, Peptides and Amino Acids
  [illegible] External Effects-Temperature as a Primary Variable-Hot (1971-)
  [illegible] Temperature: Its Measurement, Effects and Regulation-General Measurement and Methods
  [illegible] In Vitro Studies, Cellular and Subcellular
BIOSYSTEMATIC CODES:
  [illegible] Bartonellaceae (1979-)
  [illegible] Hominidae
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):
  Microorganisms
  Bacteria
  Animals
  Chordates
  Vertebrates
  Mammals
  Primates
  Humans

10/9/2 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

[illegible] 90274084 PMID: 1693472
Bartonella bacilliformis stimulates endothelial cells in vitro and is angiogenic in vivo.
Garcia F U; Wojta J; Broadley K N; Davidson J M; Hoover R L
Department of Pathology, Vanderbilt University, Nashville, Tennessee 37232.
American journal of pathology (UNITED STATES) May 1990, 136 (5) p1125-35, ISSN 0002-9440 Journal Code: 0370502
Contract/Grant No.: AG06528; AG; NIA; HL36526; HL; NHLBI
Document type: Journal Article

Language: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: AIM; INDEX MEDICUS

Bartonellosis , a biphasic disease caused by motile intracellular bacteria, produces in its ll sis phase a characteristic dermal eruption (Verruga peruana) resulting from a pronounced endothelial cell proliferation. Bacteria are found in the interstitium and within the cytoplasm of endothelial cell. (Rocha-Lima inclusion). The aim of this study was to determine if Bartonella bacilliformis produces a substance(s) that might be responsible for the vascular proliferation seen in the Verruga. This was assessed in an in vitro system using human endothelial cells and measuring proliferation as well as production of tissue type plasminogen activator after exposure to the endothelial cultures to B. bacilliformis extracts. Our results indicate that B. bacilliformis possess an activity that stimulates endothelial cell proliferation up to three times that of control. The factor(s) is specific for endothelial cells, heat sensitive, larger than 11 to 14 kd, not enhanced by heparin, has no affinity for heparin, and is precipitated by 45% ammonium sulfate. In addition, the B. bacilliformis extracts stimulate production of t-PA antigen in a concentration-dependent fashion. This activity is also heat sensitive and not lost after dialysis (12 to 14 kd). B. bacilliformis extracts, however, do not increase the production of plasminogen activator inhibitor. It was also determined that B. bacilliformis extracts stimulate the formation of new blood vessels in an in vivo model for **angiogenesis** . These results describe a bacterial factor(s) that stimulates two important steps in the development of new blood vessels in vitro, as well as the formation of new blood vessels in vivo. Determining the mechanism of action, combined with a complete characterization of this factor(s), may help in understanding the pathogenesis not only of the Verruga and **angiogenesis** in general but also the recently described Cat-Scratch-associated epithelioid hemangiomas in patients with AIDS and Kaposi sarcoma.

Tags: Animal; Human; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Descriptors: *Bartonella--physiology--PH; *Endothelium, Vascular --cytology--CY; *Neovascularization, Pathologic--physiopathology--PP; Antigens--analysis--AN; Cell Adhesion; Cell Division; Cells, Cultured; Endothelium, Vascular--immunology--IM; Endothelium, Vascular--physiology --PH; Muscle, Smooth--cytology--CY; Neutrophils--physiology--PH; Rats; Rats, Inbred Strains; Tissue Plasminogen Activator--immunology--IM; Wound Healing

CAS Registry No.: (Antigen)

Enzyme No.: EC 3.4.21.68 (Tissue Plasminogen Activator)

Record Date Created: 19911209

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               UEY STEVE' OR AU='SHUEY STEVEN W'
S2        146   AU='MOUSA SHAKER' OR AU='MOUSA SHAKER A' OR AU='MOUSA SHAK-
               ER AHMED'
S3    9639501   1 OR S2
S4        235   S1 OR S2
S5          0   S4 AND ANGIOGEN$
S6         40   S4 AND ANGIOGEN?
S7          0   OSLER AND WEBBER AND RENDU
S8          1   "OSLER-WEBBER-RENDU"
S9        166   BARTONELLOSIS
S10         1   S9 AND ANGIOGEN?
S11     57239   OSMOTIC
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             225  S4
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57229 S11
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12/9/1 (Item 1 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

12557420 BIOSIS NO.: 200000310522
Effects of the novel alphav integrin antagonist SM256 and cis-platinum on growth of murine squamous cell carcinoma PAM LY8.
AUTHOR: van Waes Carter; Enamorado-Ayala Ilean; Hecht David; Sulica Lucian; Chen Zhong; Batt Douglas G; **Mousa Shaker**
AUTHOR ADDRESS: (a)Tumor Biology Section, Head and Neck Surgery Branch, National Institute on Deafness and Other Communication Disorders, National Institutes of Health, Bldg. 10, Rm. 5D55, Bethesda, MD, 20892-1419**USA
JOURNAL: International Journal of Oncology 16 (6):p1189-1195 June, 2000
MEDIUM: print
ISSN: 1019-6439
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
SUMMARY LANGUAGE: English

ABSTRACT: Increased density of proliferating and migrating tumor cells and neovascular endothelial cells has been associated with tumor progression and poor prognosis in patients with squamous cell carcinoma (SCC). Tumor and neovascular endothelial cells in squamous cell carcinoma have been reported to express integrin heterodimers containing the av subunit, which binds to vitronectin and other extra-cellular matrix proteins that contain the amino acid recognition sequence Arg-Gly-Asp (RGD). In the present study, we examined the effect of the novel non-peptide av integrin antagonist SM256 on growth of SCC line PAM LY8 in BALB/c SCID mice, and determined whether SM256 has direct inhibitory effects on growth of murine endothelial and PAM LY8 SCC cells in vitro. SM256 inhibits cell adhesion of murine cells expressing alphavbeta3 and alphavbeta5 integrins in vitro with an IC50 of 35 nM and 10 nM, respectively. Growth of PAM LY8 tumors in vivo was inhibited with 14-day continuous administration of SM256 by subcutaneous **osmotic** diffusion pump, during which a mean serum concentration of 56 nM was detected. While both murine aortic endothelial cells and PAM LY8 were found to express alphav integrins by fluorescence cytofluorometry, SM256 at 50 nM in MTT assay completely inhibited growth of endothelial cells, but had no significant direct effect on growth of PAM LY8 cells. We compared the effect on growth of PAM LY8 of SM256 infusion versus single agent or combination chemotherapy with a maximally tolerated dose of cis-platinum, which is used as a standard chemotherapy for SCC. When treatment was initiated at either 7 or 11 days following establishment of tumor, 14-day infusion of SM256 had an inhibitory effect on growth that was similar to that obtained with single dose cis-platinum, but no additive effect of concurrent therapy with SM256 and cis-platinum was observed. These results demonstrate the activity and feasibility of use of alphav antagonists such as SM256 for therapy of SCC.

REGISTRY NUMBERS: 15663-27-1: CIS-PLATINUM
DESCRIPTORS:
MAJOR CONCEPTS: Pharmacology; Tumor Biology
BIOSYSTEMATIC NAMES: Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: PAM LY8 cell line (Muridae)--squamous cell carcinoma cell
ORGANISMS: PARTS ETC: aortic endothelial cell--circulatory system; neovascular endothelial cell--circulatory system
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): Animals; Chordates; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Rodents; Vertebrates
DISEASES: squamous cell carcinoma--neoplastic disease
CHEMICALS & BIOCHEMICALS: SM256--alpha-V integrin antagonist; cis-platinum

ALTERNATE INDEXING: Cat [illegible], Squamous Cell [illegible] (MeSH)
CONCEPT CODES:
[illegible] Pharmacology-General
[illegible] Cytology and Cytochemistry-Animal
[illegible] Neoplasms and Neoplastic Agents-General
14601 Cardiovascular System-General; Methods
BIOSYSTEMATIC CODES:
86375 Muridae
?s 12 and angiogen?
1247971 12
36627 ANGIOGEN?
S13 2116 12 AND ANGIOGEN?
?s s12 and angiogen?
1 S12
36627 ANGIOGEN?
S14 1 S12 AND ANGIOGEN?
?s rgd
S15 5198 RGD
?s s15 and angiogen?
5198 S15
36627 ANGIOGEN?
S16 142 S15 AND ANGIOGEN?
?s s16 and py>2000
142 S16
1803476 PY>2000
S17 63 S16 AND PY>2000
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17/8/1 (Item 1 from file: 5)
13834365 BIOSIS NO.: 200200523386
Peptido-mimetic compounds containing RGD sequence useful as integrin inhibitors.
2002

17/8/2 (Item 2 from file: 5)
13727942 BIOSIS NO.: 200200356763
In vitro and in vivo evaluation of a technetium-99m-labeled cyclic RGD peptide as a specific marker of alphavbeta3 integrin for tumor imaging.
2002

17/8/3 (Item 3 from file: 5)
13709104 BIOSIS NO.: 200200337929
Del1 mediates VSMC adhesion, migration, and proliferation through interaction with integrin alphavbeta3.
2002

17/8/4 (Item 4 from file: 5)
13674697 BIOSIS NO.: 200200313518
Osteopontin deficiency protects joints against destruction in anti-type II collagen antibody-induced arthritis in mice.
2002

17/8/5 (Item 5 from file: 5)
13652749 BIOSIS NO.: 200200281570
Inhibition of the alpha-v integrins with a cyclic RGD peptide impairs angiogenesis , growth and metastasis of solid tumours in vivo.
2002

17/8/6 (Item 6 from file: 5)
13651989 BIOSIS NO.: 200200280810
Kinetics of integrin expression in the mouse model of proliferative retinopathy and success of secondary intervention with cyclic RGD peptides.

2002

17/8/7 (Item 7 from file: 5)
13610026 BIOSIS NO.: 200200238847
alphav-integrin antagonist EMD 121974 induces apoptosis in brain tumor cells growing on vitronectin and tenascin.
2002

17/8/8 (Item 8 from file: 5)
13582758 BIOSIS NO.: 200200211679
A novel RGD peptide inhibited tumor growth in vivo via anti- angiogenic mechanism.
2001

17/8/9 (Item 9 from file: 5)
13570046 BIOSIS NO.: 200200198867
Characterisation of the thiol isomerase activity of alphavbeta3.
2001

17/8/10 (Item 10 from file: 5)
13561644 BIOSIS NO.: 200200190465
Preparation and functional evaluation of RGD -modified proteins as alphavbeta3 integrin directed therapeutics.
2002

17/8/11 (Item 11 from file: 5)
13519098 BIOSIS NO.: 200200143819
Shear stress-induced endothelial cell migration involves integrin signaling via the fibronectin receptor subunits alpha5 and beta1.
2002

17/8/12 (Item 12 from file: 5)
13439633 BIOSIS NO.: 200200063454
Domain IVa of laminin alpha5 chain is cell-adhesive and binds beta1 and alphaVbeta3 integrins through Arg-Gly-Asp.
2001

17/8/13 (Item 13 from file: 5)
13409803 BIOSIS NO.: 200200038324
Targeted delivery of IL-12 to alphavbeta3 integrin inhibits angiogenesis .
2001

17/8/14 (Item 14 from file: 5)
13409801 BIOSIS NO.: 200200038322
Additive effect of fenretinide and the RGD -blocking peptide RGDfV on endothelial cell ceramide.
2001

17/8/15 (Item 15 from file: 5)
13409500 BIOSIS NO.: 200200038321
Synthesis and biological evaluation of novel RGD -containing cyclic pseudopeptides.
2001

17/8/16 (Item 16 from file: 5)
13358139 BIOSIS NO.: 200100565288
Tumor targeting with radiolabeled integrin alphavbeta3 binding RGD

peptides in a nude mouse tumor model.
2001

17/8/17 (Item 17 from file: 5)
[illegible] BIOSIS NO.: [illegible]
Inhibition of hepatic metastasis in mice treated with cell-binding domain of human fibronectin and angiogenesis inhibitor TNP-470.
2001

17/8/18 (Item 18 from file: 5)
13349645 BIOSIS NO.: 200100556794
A novel synthetic Arg-Gly-Asp-containing peptide cyclo(-RGDfdbdV-) is the potent inhibitor of angiogenesis .
2001

17/8/19 (Item 19 from file: 5)
13348097 BIOSIS NO.: 200100555246
In vitro evaluation of a 99mTc labeled RGD peptide as an antagonist of avb3 integrins in tumor.
2001

17/8/20 (Item 20 from file: 5)
13345642 BIOSIS NO.: 200100553791
Glycosylated RGD -containing peptides: Tracer for tumor targeting and angiogenesis imaging with improved biokinetics.
2001

17/8/21 (Item 21 from file: 5)
13326977 BIOSIS NO.: 200100534126
Peptido-mimetic compounds containing RGD sequence useful as integrin inhibitors.
2001

17/8/22 (Item 22 from file: 5)
13312935 BIOSIS NO.: 200100520084
Localisation of brain angiogenesis inhibitor receptor 1-3 mRNA in mouse, rat and human brain.
2001

17/8/23 (Item 23 from file: 5)
13304311 BIOSIS NO.: 200100511460
RGD -modified proteins are potential carriers for drug targeting to angiogenic endothelial cells.
2001

17/8/24 (Item 24 from file: 5)
13253152 BIOSIS NO.: 200100459301
Extracellular matrix-derived peptide binds to alphavbeta3 integrin and inhibits angiogenesis .
2001

17/8/25 (Item 25 from file: 5)
13185465 BIOSIS NO.: 200100392614
Improved pharmacokinetics of (18F) RGD -peptides by serine-conjugation.
2001

17/8/26 (Item 26 from file: 5)
13184703 BIOSIS NO.: [illegible]

Recombinant truncated tissue factor/ [illegible] fusion protein as a target anti-vascular therapeutic agent.
2001

17/8/27 (Item 27 from file: 5)
12162620 BIOSIS NO.: 200100369769
Thiolutin, an inhibitor of HUVEC adhesion to vitronectin, reduces paxillin in HUVECs and suppresses tumor cell-induced angiogenesis .
2001

17/8/28 (Item 28 from file: 5)
12153744 BIOSIS NO.: 200100360893
Topical application of integrin antagonists inhibits proliferative retinopathy.
2001

17/8/29 (Item 29 from file: 5)
12149962 BIOSIS NO.: 200100357111
Two RGD independent avb3 integrin binding sites on vascular basement membrane derived tumstatin.
2001

17/8/30 (Item 30 from file: 5)
12126775 BIOSIS NO.: 200100333924
Identification of the anti- angiogenic site within vascular basement membrane-derived tumstatin.
2001

17/8/31 (Item 31 from file: 5)
12119520 BIOSIS NO.: 200100322669
An angiogenic laminin site and its antagonist bind through the alphavbeta3 and alpha5beta1 integrins.
2001

17/8/32 (Item 32 from file: 5)
12112023 BIOSIS NO.: 200100319172
Spinal cord repair with PHPMA hydrogel containing RGD peptides (NeuroGelTM).
2001

17/8/33 (Item 33 from file: 5)
12056932 BIOSIS NO.: 200100264131
Pivotal role of integrins in shear-stress-induced release of bFGF from endothelial cells.
2001

17/8/34 (Item 34 from file: 5)
12977601 BIOSIS NO.: 200100184750
Noninvasive imaging of alphavbeta3 integrin expression using 18F-labeled RGD -containing glycopeptide and positron emission tomography.
2001

17/8/35 (Item 35 from file: 5)
12916650 BIOSIS NO.: 200100123999
Aberrant fibrin formation and cross-linking of fibrinogenNieuwegein, a variant with a shortened Aalpha-chain, alters endothelial capillary tube formation.
2001

17/8/36 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12543745 22206713 PMID: 12374814
Plasmin-induced Migration of Endothelial Cells. A POTENTIAL TARGET FOR THE ANTI- ANGIOGENIC ACTION OF ANGIOSTATIN.
Sep 13 2002

17/8/37 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13413096 21932446 PMID: 11935158
Kinetics of integrin expression in the mouse model of proliferative retinopathy and success of secondary intervention with cyclic RGD peptides.
Feb 2002
Tags: Animal; Support, Non-U.S. Gov't
Descriptors: *Diabetic Retinopathy--drug therapy--DT; *Diabetic Retinopathy--immunology--IM; *Integrins--biosynthesis--BI; *Neovascularization, Pathologic--prevention and control--PC; *Oligopeptides--therapeutic use--TU; *Platelet Aggregation Inhibitors--therapeutic use--TU; Disease Models, Animal; Mice; Mice, Inbred C57BL; Oligopeptides--chemistry--CH; Peptides, Cyclic--chemistry--CH; Peptides, Cyclic--therapeutic use--TU; Retinal Vessels--pathology--PA
CAS Registry No.: 0 (Integrins); 0 (Oligopeptides); 0 (Peptides, Cyclic); 0 (Platelet Aggregation Inhibitors); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/38 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13335017 21905378 PMID: 12009947
In vitro and in vivo evaluation of a Technetium-99m-labeled cyclic RGD peptide as a specific marker of alpha(V)beta(3) integrin for tumor imaging.
May-Jun 2002

17/8/39 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13159195 21959999 PMID: 11959660
Del1 mediates VSMC adhesion, migration, and proliferation through interaction with integrin alpha(v)beta(3).
May 2002
Tags: Animal; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
Descriptors: *Carrier Proteins--physiology--PH; *Cell Adhesion--physiology--PH; *Cell Division--physiology--PH; *Cell Movement--physiology--PH; *Muscle, Smooth, Vascular--cytology--CY; *Receptors, Vitronectin--physiology--PH; Apoptosis--drug effects--DE; Baculoviridae--genetics--GE; Carrier Proteins--genetics--GE; Carrier Proteins--pharmacology--PD; Chemotaxis; Embryo; Endothelium, Vascular--metabolism--ME; Gene Expression; In Situ Nick-End Labeling; Neovascularization, Physiologic; Oligopeptides--pharmacology--PD; Receptors, Vitronectin--antagonists and inhibitors--AI; Recombinant Proteins--pharmacology--PD; Spodoptera--metabolism--ME
CAS Registry No.: 0 (Carrier Proteins); 0 (Dell protein,); 0 (Oligopeptides); 0 (Receptors, Vitronectin); 0 (Recombinant Proteins,); 99896-85-2 (arginyl-glycyl-aspartic acid)

17/8/40 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

13092970 21927641 PMID: 11930009
Osteopontin deficiency protects joints against destruction in anti-type

cell-surface attachment-promoting Arg-Gly-Asp **RGD** motif. MFBA was produced in Escherichia coli using a maltose-binding protein (MBP) fusion **vector**, but it was cleaved into four fragments even in a protease-deficient host. A 425-aa MFBA peptide containing the **RGD** motif, named MFBA(582-1006) peptide, was successfully produced using the phage T7 expression system. This MFBA(582-1006) peptide exhibited a cell adhesion and spreading activity toward mammalian cells. This activity of the MFBA fragment was competitively inhibited by the Gly-Arg-Gly-Asp-Ser-Pro peptide but not by the Gly-Arg-Gly-Glu-Ser-Pro peptide, showing that the **RGD** motif of MFBA is essential for the cell-binding activity.

DESCRIPTORS:
MAJOR CONCEPTS: Biochemistry and Molecular Biophysics; Cell Biology; Genetics; Membranes (Cell Biology); Molecular Genetics (Biochemistry and Molecular Biophysics); Reproduction
BIOSYSTEMATIC NAMES: Basidiomycetes--Fungi, Plantae; Fungi-Unspecified--Fungi, Plantae; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: Basidiomycetes (Fungi - Unspecified); Lentinus edodes (Basidiomycetes); Muridae (Muridae)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; fungi; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; nonvascular plants; plants; rodents; vertebrates
MOLECULAR SEQUENCE DATABANK NUMBER: amino acid sequence; molecular sequence data; nucleotide sequence; DDBJ-D01209; EMBL-D01209; GENBANK-D01209
MISCELLANEOUS TERMS: COMPLEMENTARY **DNA**; GILL **TISSUE**; MOUSE B16 CELLS; PILEUS; **RGD** MOTIF; SPREADING ACTIVITY; STIPE; **TISSUE** SPECIFIC GENE EXPRESSION
CONCEPT CODES:
[illegible] Cytology and Cytochemistry-Plant
[illegible] Cytology and Cytochemistry-Animal
[illegible] Genetics and Cytogenetics-Plant
[illegible] Biochemical Studies-Nucleic Acids, Purines and Pyrimidines
[illegible] Biochemical Studies-Proteins, Peptides and Amino Acids
[illegible] Replication, Transcription, Translation
[illegible] Biophysics-Membrane Phenomena
[illegible] Plant Physiology, Biochemistry and Biophysics-Reproduction
[illegible] Plant Physiology, Biochemistry and Biophysics-Chemical Constituents
BIOSYSTEMATIC CODES:
[illegible] Basidiomycetes
[illegible] Muridae

26/9/5 (Item 5 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)
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[illegible] BIOSIS NO.: 199598113709
Recombinant Domain III of Perlecan Promotes Cell Attachment through Its RGDS Sequence.
AUTHOR: Chandrasekhar Sruthi; Boschek Teresa; Jefferson Bahiyyah; Laurie Gordon W; Hassell John R(a)
AUTHOR ADDRESS: a)Dept. Ophthalmol., Univ. Pittsburgh Sch. Med., Eye Res Inst., 203 Lothrop St., Pittsburgh, PA 15213, USA
JOURNAL: Journal of Biological Chemistry 270 (1):p404-409 1995
ISSN: 0021-9258
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

ABSTRACT: Perlecan has been previously been shown to support attachment of a wide variety of cells through interactions of its core protein with the cell surface. The core protein domains involved in cell adhesion are, however, unknown. The laminin-like domain III of murine perlecan contains an RGDS sequence and is a likely candidate for supporting integrin-mediated cell attachment. We made a cDNA construct corresponding

[illegible] domain III and [illegible] in frame signal peptide at the [illegible] end as well as in frame a stop [illegible] at the [illegible] end by using cDNA [illegible] perlecan. The construct was inserted into the pR[illegible] **vector** and transfected into HT1080 cells, and the secreted recombinant domain III, a 130-kDa protein, was purified from the medium. The size of proteolytic fragments produced by digestion with V8 protease as well as analysis of the rotary shadowed image of the recombinant protein indicated it was produced in a native conformation. Recombinant domain III coated on **tissue** culture dishes, supports adhesion of an epithelial-like [illegible] mammary tumor cell line MMT 060562 in a dose-dependent manner. This interaction was inhibited specifically by the RGDS synthetic peptide and intact perlecan, but not laminin. This domain III **RGD** -dependent cell attachment activity indicates a role for perlecan in integrin-mediated signaling.

REGISTRY NUMBERS: 153-37-7Q: INTEGRIN; 60791-49-3Q: INTEGRIN
DESCRIPTORS:
MAJOR CONCEPTS: Cell Biology; Genetics; Membranes (Cell Biology); Metabolism
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia
ORGANISMS: human (Hominidae)
BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; chordates; humans; mammals; primates; vertebrates
CHEMICALS & BIOCHEMICALS: INTEGRIN
MISCELLANEOUS TERMS: COMPLEMENTARY **DNA** ; HT1080 CELL LINE; INTEGRIN-MEDIATED SIGNALLING; PERLECAN
CONCEPT CODES:
02508 Cytology and Cytochemistry-Human
03508 Genetics and Cytogenetics-Human
10508 Biophysics-Membrane Phenomena
13012 Metabolism-Proteins, Peptides and Amino Acids
13014 Metabolism-Nucleic Acids, Purines and Pyrimidines
10062 Biochemical Studies-Nucleic Acids, Purines and Pyrimidines
10064 Biochemical Studies-Proteins, Peptides and Amino Acids
10068 Biochemical Studies-Carbohydrates
BIOSYSTEMATIC CODES:
86215 Hominidae

26/9/6 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

12[illegible] 11543326 PMID: 11687931

Potential tumor-targeting peptide vector **of histidylated oligolysine conjugated to a tumor-homing** RGD **motif.**

Aoki Y; Hosaka S; Kawa S; Kiyosawa K
The Second Department of Internal Medicine, Shinshu University School of Medicine, Matsumoto, Japan. yaoki55@hsp.md.shinshu-u.ac.jp

Cancer gene therapy (England) Oct 2001, 8 (10) p783-7, ISSN 0929-1903 Journal Code: 9432230
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
Subfile: INDEX MEDICUS

We have developed a potential tumor-targeting peptide **vector** (cRGD-hK) that is intended to be systemically and repeatedly administered to patients with advanced solid tumors. The peptide **vector** of 36 l-amino acid residues, CRGDCF(K[H-]KKK)6, comprises a tumor-homing **RGD** motif, a **DNA** -binding oligolysine, and histidyl residues to facilitate the delivery into the cytosol. Using cytomegalovirus-driven luciferase expression plasmids as a reporter, we tested the transfection efficiency of cRGD-hK in hepatoma and pancreatic cancer cell lines. Transfection with the cRGD-hK/plasmid complexes (molar ratio 40:1) was inhibited by 10 nM bafilomycin A1, an inhibitor of the vacuolar ATPase endosomal proton pump, or 10 microM cyclic RGDfV, an integrin alphavbeta3 antagonist, indicating that the three elements of cRGD-hK could function as expected, at least in vitro. In nude

[illegible] bearing tumors treated by [illegible] activity in the tumor **tissues** [illegible] DNA-liposome complexes through the tail vein. The [illegible] mouse, was significantly higher than that in the lung, kidney, and spleen, but only slightly higher than that in the liver. Although the latter difference was small, we propose a potential [illegible] advanced solid tumors through use of the tumor-targeting peptide **vector**.

Tags: Animal; Human; Male; Support, Non-U.S. Gov't

Descriptors: *Gene Therapy--methods--MT; *Genetic Vectors; *Histidine; *Liver Neoplasms, Experimental--therapy--TH; *Oligopeptides--genetics--GE; *Pancreatic Neoplasms--therapy--TH; *Polylysine--genetics--GE; Antibiotics, Macrolide--pharmacology--PD; Enzyme Inhibitors--pharmacology--PD; Liver Neoplasms, Experimental--metabolism--ME; Liver Neoplasms, Experimental--pathology--PA; Luciferase--metabolism--ME; Mice; Mice, Inbred BALB C; Mice, Nude; Oligopeptides--pharmacokinetics--PK; Pancreatic Neoplasms--metabolism--ME; Pancreatic Neoplasms--pathology--PA; Plasmids; Polylysine--pharmacokinetics--PK; Proton-Translocating ATPases--antagonists and inhibitors--AI; **Tissue** Distribution; Tumor Cells, Cultured

CAS Registry No.: 0 (Antibiotics, Macrolide,); 0 (Enzyme Inhibitors); 0 (Genetic Vectors); 0 (Oligopeptides); 0 (Plasmids); 25104-18-1 (Polylysine); 71-00-1 (Histidine); 88899-55-2 (bafilomycin A1,); 99896-85-2 (arginyl-glycyl-aspartic acid)

Enzyme No.: EC 1.13.12.- (Luciferase); EC 3.6.3.14 (Proton-Translocating ATPases)

Record Date Created: 20011031

26/9/7 (Item 2 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08426116 95173398 PMID: 7867945

A fruiting body-specific cDNA, mfbAc, from the mushroom Lentinus edodes encodes a high-molecular-weight cell-adhesion protein containing an Arg-Gly-Asp motif.

Fordon O; Muto A; Fujiwara S; Takagi J; Saito Y; Shishido K

Department of Life Science, Tokyo Institute of Technology, Yokohama, Japan.

[illegible] MYCOLOGIA Apr-May 1994, 114 (2): 231-7, ISSN 0027-5514

Journal Code: [illegible]

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Subfile: INDEX MEDICUS

A cDNA clone (designated mfbAc), encoding 2137 amino acids (aa), was isolated from a mature fruiting-body cDNA library of the edible mushroom Lentinus edodes. The mfbA transcript was abundant in mature fruiting bodies, detectable in immature fruiting bodies but absent in earlier developmental stages and in the vegetative mycelium. Although more abundant in the pileus than the stipe, only low levels were found in the gill **tissue**. The deduced MFBA protein (234.5 kDa) contained a cell-surface attachment-promoting Arg-Gly-Asp (**RGD**) motif. MFBA was produced in Escherichia coli using a maltose-binding protein (MBP) fusion **vector**, but it was cleaved into four fragments even in a protease-deficient host. A 42.1-aa MFBA peptide containing the **RGD** motif (named MFBA(582-1006) peptide) was successfully produced using the phage T7 expression system. This MFBA(582-1006) peptide exhibited a cell adhesion and spreading activity toward mammalian cells. This activity of the MFBA fragment was competitively inhibited by the Gly-Arg-Gly-Asp-Ser-Pro peptide but not by the Gly-Arg-Gly-Glu-Ser-Pro peptide, showing that the **RGD** motif of MFBA is essential for the cell-binding activity.

Tags: Support, Non-U.S. Gov't

Descriptors: Cell Adhesion Molecules--genetics--GE; * **DNA**, Complementary --genetics--GE; * **DNA**, Fungal--genetics--GE; *Genes, Structural, Fungal; *Oligopeptides; *Polyporaceae--genetics--GE; Amino Acid Sequence; Base Sequence; Binding, Competitive; Cell Adhesion; Cell Adhesion Molecules --chemistry--CH; Cell Adhesion Molecules--metabolism--ME; Cloning, Molecular; Escherichia coli; Molecular Sequence Data; **RNA**, Fungal